# FIVE-YEAR REVIEW REPORT FOR LENZ OIL SERVICES, INC. SUPERFUND SITE DUPAGE COUNTY, ILLINOIS

**Prepared by**

**U.S. Environmental Protection Agency**
**Region 5**
**Chicago, Illinois**

**March 2014**

Approved by:

for Richard C. Karl, Director
Superfund Division, Region 5

Date: 3/27/2014

## TABLE OF CONTENTS

**Tables**



**Appendix A – Figures**



**Appendix B – Attachments**

## LIST OF ACRONYMS

| | |
|---|---|
| AOC | Administrative Order on Consent |
| BTEX | benzene, toluene, ethylbenzene, and xylenes |
| CD | Consent Decree |
| CERCLA | Comprehensive Environmental Response, Compensation, and Liability Act |
| C.F.R. | Code of Federal Regulations |
| EPA | United States Environmental Protection Agency |
| ESD | Explanation of Significant Differences |
| FS | Feasibility Study |
| FYR | Five-Year Review |
| HI | Hazard Index |
| ICs | Institutional Controls |
| IEPA | Illinois Environmental Protection Agency |
| LNAPL | Light Non-Aqueous Phase Liquid |
| LTTD | Low Temperature Thermal Desorption |
| MCLs | Maximum Contaminant Levels |
| NCP | National Oil and Hazardous Substances Pollution Contingency Plan |
| NPDES | National Pollutant Discharge Elimination System |
| NPL | National Priorities List |
| O&M | Operation and Maintenance |
| OU | Operable Unit |
| PAHs | Polynuclear Aromatic Hydrocarbons |
| PCBs | Polychlorinated Biphenyls |
| PCE | Tetrachloroethene |
| PDDC | Pre-Design Data Collection |
| ppb | parts per billion |
| PRPs | Potentially Responsible Parties |
| RA | Remedial Action |
| RAOs | Remedial Action Objectives |
| RCRA | Resource Conservation and Recovery Act |
| RD | Remedial Design |
| RD/RA | Remedial Design/Remedial Action |
| RI | Remedial Investigation |
| RI/FS | Remedial Investigation/ Feasibility Study |
| ROD | Record of Decision |
| SVOCs | Semi-Volatile Organic Compounds |
| TCE | Trichloroethene |
| ug/kg | micrograms per kilogram |
| ug/L | micrograms per liter |
| UU/UE | Unlimited Use/Unrestricted Exposure |
| VER | Vacuum Enhanced Recovery |
| VOCs | Volatile Organic Compounds |

## EXECUTIVE SUMMARY

The completion of the current five-year review (FYR) for the Lenz Oil Services Superfund site confirms that the components of the remedies selected in the 1999 Record of Decision (ROD) and the 2007 Explanation of Significant Differences (ESD) have been implemented and remain effective under the 2001 Remedial Design/Remedial Action (RD/RA) Consent Decree (CD) and Remedial Action Plan. This is the first FYR for the site.

The remedy for the Lenz Oil site in Du Page County, Illinois, addresses shallow subsurface light non-aqueous phase liquid (LNAPL) at the edge of and emanating from the site property, and includes the following components: 1) a 1,300-foot containment wall surrounding the LNAPL area; 2) four trenches, each 220 feet to 250 feet long and 16 feet deep; 3) a dewatering system to lower the groundwater table to enhance LNAPL recovery and vapor extraction; 4) an 1,840-cubic-feet-per-minute vapor extraction system with air injection; 5) a treatment building housing the dewatering, vapor extraction, and air injection systems; and 6) a network of LNAPL and vapor monitoring points. The remedy was implemented as a single operable unit (OU). Prior to the site ROD remedy, the State of Illinois excavated and incinerated contaminated soils on the Lenz Oil property. The site achieved construction completion with the signing of the Preliminary Closeout Report on September 28, 2009. The trigger action for this FYR was the start of remedial action construction in March 2009.

The assessment of this FYR has found that the remedy at the Lenz Oil site currently protects human health and the environment since all known exposure pathways have been eliminated. However, in order for the remedy to be protective in the long term, legally effective use restrictions that protect the integrity of the remedy components, prohibit land uses that interfere with the remedy, and prohibit the use of contaminated groundwater will need to be implemented and maintained. Long-term protectiveness requires compliance with effective institutional controls (ICs), including land use restrictions that prohibit interference with the Vacuum Enhanced Recovery (VER) system.

## Five-Year Review Summary Form

| SITE IDENTIFICATION | | |
|---|---|---|
| **Site Name:** Lenz Oil Services, Inc. | | |
| **EPA ID:** ILD005451711 | | |
| **Region:** 5 | **State:** IL | **City/County:** Lemont/DuPage County |

| SITE STATUS | |
|---|---|
| **NPL Status:** Final | |
| **Multiple OUs?**<br>No | **Has the Site achieved construction completion?**<br>Yes |

| REVIEW STATUS |
|---|
| **Lead agency:** EPA |
| **Author name (Federal or State Project Manager):** Scott Hansen |
| **Author affiliation:** Remedial Project Manager |
| **Review period:** 3/28/2013 – 3/28/2014 |
| **Date of site inspection:** 3/17/2014 |
| **Type of review:** Statutory |
| **Review number:** 1 |
| **Triggering action date:** 3/30/2009 |
| **Due date *(five years after triggering action date)*:** 3/30/2014 |

## Five-Year Review Summary Form (continued)

### Issues/Recommendations

| OU(s) without Issues/Recommendations Identified in the Five-Year Review: |
|---|
| None |

**Issues and Recommendations Identified in the Five-Year Review:**

| OU(s): 1 | Issue Category: Institutional Controls | | | |
|---|---|---|---|---|
| | **Issue:** The second of two environmental covenants needs to be implemented | | | |
| | **Recommendation:** Record the environment covenant for the Lenz Oil property | | | |
| **Affect Current Protectiveness** | **Affect Future Protectiveness** | **Implementing Party** | **Oversight Party** | **Milestone Date** |
| No | Yes | PRP | EPA | 06/30/2014 |

| OU(s): 1 | Issue Category: Institutional Controls | | | |
|---|---|---|---|---|
| | **Issue:** Need to ensure long-term stewardship | | | |
| | **Recommendation:** Modify the O&M plan to ensure that effective ICs are maintained and monitored | | | |
| **Affect Current Protectiveness** | **Affect Future Protectiveness** | **Implementing Party** | **Oversight Party** | **Milestone Date** |
| No | Yes | PRP | EPA | 09/30/2014 |

### OU1 and Sitewide Protectiveness Statement(s)

*Protectiveness Determination:*
Short-term Protective

*Protectiveness Statement:*
The assessment of this FYR has found that the remedy at the Lenz Oil site currently protects human health and the environment since all known exposure pathways have been eliminated. However, in order for the remedy to be protective in the long term, legally effective use restrictions that protect the integrity of the remedy components, prohibit land uses that interfere with the remedy, and prohibit the use of contaminated groundwater will need to be implemented and maintained. Long-term protectiveness requires compliance with effective ICs, including land use restrictions that prohibit interference with the VER system.

**Five-Year Review Report**

## 1.0 INTRODUCTION

The United States Environmental Protection Agency (EPA) has conducted a FYR of the remedial actions implemented at the Lenz Oil site in Lemont, Illinois. The review was conducted between March 2013 and March 2014. This report documents the results of the FYR. The purpose of a five-year review is to evaluate the implementation and performance of a remedy in order to determine whether the remedy at a site is protective of human health and the environment. The methods, findings, and conclusions of the review are documented in FYR reports. In addition, FYR reports identify issues found during the review, if any, and document recommendations to address them.

EPA prepares FYRs pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). CERCLA 121(c), as amended, states:

> *If the President selects a remedial action that results in any hazardous substances, pollutants, or contaminants remaining at the site, the President shall review such remedial action no less often than each five years after the initiation of such remedial action to assure that human health and the environment are being protected by the remedial action being implemented. In addition, if upon such review it is the judgment of the President that action is appropriate at such site in accordance with section [104] or [106], the President shall take or require such action. The President shall report to the Congress a list of facilities for which such review is required, the results of all such reviews, and any actions taken as a result of such reviews.*

EPA interpreted this requirement further in the NCP. Title 40 of the Code of Federal Regulations (C.F.R.), section 300.430(f)(4)(ii), states:

> *If a remedial action is selected that results in hazardous substances, pollutants, or contaminants remaining at the site above levels that allow for unlimited use and unrestricted exposure, the lead agency shall review such action no less often than every five years after the initiation of the selected remedial action.*

This is the first FYR for the Lenz Oil site. Due to the fact that hazardous substances, pollutants, or contaminants remain at the site above levels that allow for unlimited use and unrestricted exposure (UU/UE), FYRs are statutorily required. The trigger action for this FYR was the start of remedial action construction in March 2009.

## 2.0 SITE CHRONOLOGY

| Table 1 - Chronology of Site Events | |
|---|---|
| **Date** | **Event** |
| 1961-1985 | Operation of waste oil recycling, storage, and transfer facility |
| 1985-1988 | Illinois Environmental Protection Agency (IEPA) work activities |
| 10/1989 | National Priorities List (NPL) listing |
| 11/1989 | Administrative Order on Consent signed |
| 10/1997 | Remedial Investigation/Feasibility Study (RI/FS) report completed |
| 09/30/1999 | Final ROD signed |
| 04/03/2001 | Consent Decree for RD/RA finalized |
| 08/14/2002 | Consent Decree for RD/RA entered by court |
| 2003-2004 | Pre-Design Data Collection work conducted |
| 2005-2006 | Supplemental Pre-Design Data Collection work conducted |
| 04/10/2007 | ESD issued |
| 04/17/2008 | Remedial Design (RD) completion |
| 01/07/2009 | Phase I Remedial Action Work Plan approved |
| 03/2009 | Remedial Action (RA) construction begins |
| 09/24/2009 | Pre-final inspection conducted |
| 09/28/2009 | Preliminary Close-Out Report signed |
| 02/2010 | Vacuum Enhanced Recover (VER) system operational |
| 11/19/2010 | EPA approved Phase I RA Construction Completion Report |

## 3.0 BACKGROUND

### 3.1 Physical Characteristics

The site is located in an unincorporated area of southeast DuPage County, Illinois, two miles northeast of the Village of Lemont, Illinois. The site consists of the Lenz Oil property and contiguous property to the south which has contamination originating from the Lenz Oil property. The Lenz Oil property is bounded by Jeans Road on the south, by Route 83 on the west, by open land on the east, and by the Atchison, Topeka, and Santa Fe Railroad on the north. Figure 1 shows the Lenz Oil property as well as the adjacent impacted property south of Jeans

Road. The Lenz Oil property is currently a flat, vacant, grassy area containing a radio tower, a number of monitoring wells and piezometers, a fire hydrant, two utility manways, and the building that contains the VER system. The portion of the site south of Jeans Road contains a residence adjacent to one corner along with several storage structures. The site is located within the 100-year floodplain of the Des Plaines River, just 500 feet from the river.

### 3.2 Land and Resource Use

The site operated as a waste-oil recycling and transfer facility during the period from 1961 to 1985.

The portion of the site consisting of the Lenz Oil property is zoned as light industrial, has no present use contrary to the zoned use, and therefore has an anticipated future use consistent with light industrial zoning. The remaining portion of the site consisting of the property to the south of Jeans Road is also zoned as light industrial; however, a residence and a landscaping business exist on the property currently, and future owners of the property may continue using the area for a business and/or residence.

The shallow geology at the site consists of Silurian dolomite bedrock overlain by up to 26.5 feet of unconsolidated glacial and alluvial deposits and assorted fill material. Bedrock present beneath the site is part of the Racine dolomite formation, which is characterized by discrete fracture zones, most of which are horizontal and appear to be bedding planes. In general, bedrock is encountered between 10 and 26 feet below ground level in the area of the site. The unconsolidated deposits directly on top of the bedrock consist of silty gravel with some sand and clay. The water level of the aquifer beneath the site varies between approximately 4 and 12 feet below ground level depending on the amount of precipitation in the area. Groundwater flows to the southeast towards the Des Plaines River.

### 3.3 History of Contamination

As mentioned, above, the site operated as a recycling, storage, and transfer facility for waste oil and solvents from the early 1960s to mid-1980s. In July 1981, IEPA issued a "developmental" permit for Lenz Oil to operate as a waste management facility. In 1982, EPA cited the facility for operating as a Resource Conservation and Recovery Act (RCRA) hazardous waste facility without having an interim status permit. Although the facility owner then submitted an application for the required RCRA permit, the facility owner withdrew the permit application in November 1984, saying that the facility no longer handled hazardous waste. After a site inspection early in 1985, IEPA and Lenz Oil entered into an agreed order on May 22, 1985, in which Lenz Oil agreed to prepare and implement a cleanup and closure plan for the site. Lenz Oil failed to carry out major portions of the court order and, in April 1986, filed for bankruptcy. Past operations at the Lenz Oil facility led to the release of contaminated oil and solvents to facility soils, which then resulted in the presence of dissolved and non-dissolved oil and solvent contamination in the shallow aquifer beneath the site.

### 3.4 Initial Response

On January 17, 1986, IEPA filed a State Record of Decision (State ROD) for immediate removal action at the site. IEPA investigations of the Lenz Oil property in November 1985 found the following items at the site:

- Three 30,000- to 80,000-gallon unlined concrete underground storage tanks;
- Nine tank trucks with a total capacity of over 30,000 gallons;
- Fourteen low- to moderate-capacity above-ground or partially buried steel tanks;
- Six low-capacity underground steel tanks;
- A drum storage area containing approximately 200 drums; and
- Three surface impoundments constructed of porous cinder-type material.

In addition, oil and solvent waste contaminated the soil and the aquifer. IEPA initiated cleanup actions at the Lenz Oil property in 1986 and by mid-1988 had accomplished the following actions: incinerated all drum, tank, and tank truck contents; shredded and incinerated all on-property containers; emptied and decontaminated all tank trucks on the property; and demolished and removed all buildings, above-ground structures, and below-ground structures from the property. IEPA excavated and incinerated about 21,000 tons of contaminated soil. In addition, the IEPA cleanup included filling the on-property surface impoundment areas and providing nearby residences with municipal water hook-ups.

On October 4, 1989, EPA finalized the site on the NPL, and in November 1989, certain Potentially Responsible Parties (PRPs) for the site signed an administrative order on consent (AOC) with EPA and IEPA. Under the AOC, the PRPs agreed to conduct an RI/FS, under the joint oversight of EPA and IEPA, to determine the nature and extent of the remaining site contamination.

### 3.5 Basis for Taking Action

Results of sampling and investigation during the RI and subsequent field activities revealed the presence of a number of potential contaminants of concern both on- and off-site. Contaminants found in the area of the site included heavy metals, volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), polynuclear aromatic hydrocarbons (PAHs), and polychlorinated biphenyls (PCBs).

Groundwater Aquifer

The investigation results showed that a layer of non-dissolved LNAPL was floating on top of the aquifer at the site, and that dissolved LNAPL constituents were found in the groundwater beneath the layer of non-dissolved LNAPL.

- **LNAPL:** Samples of non-dissolved LNAPL floating in the surficial aquifer beneath the site contained the highest levels of contaminants found. Three LNAPL samples were collected during each of the sampling efforts in 1991, 1994, and 1997. The samples collected in 1997 were analyzed for VOCs only. The results from each sampling event

showed that some of the constituents detected in the LNAPL, and the range of concentrations at which they were detected, included:

- *VOCs:* acetone (4,200 to 500,000J[1] micrograms per kilogram [ug/kg]), total 1,2-dichloroethene (39,000 to 460,000J ug/kg), toluene (49,000 to 4,400,000 ug/kg), ethyl benzene (6,900 to 2,000,000 ug/kg), and total xylenes (4,700 to 8,500,000 ug/kg)
- *SVOCs:* bis(2-ethylhexyl)phthalate (110,000J ug/kg) and 2-methylnaphthalene (1,000,000 to 2,900,000 ug/kg)
- *PCBs:* Aroclor-1242 (65,000J to 210,000J ug/kg) and Aroclor-1260 (38,000J to 42,000J ug/kg)
- *Inorganics:* arsenic (1,900J to 5,800J ug/kg), barium (121,000 to 219,000J ug/kg), cadmium (11,200 ug/kg), chromium (4,600J to 5,700 ug/kg), lead (81,000 to 150,000 ug/kg), and zinc (3,300J to 7,100J ug/kg).

- **Dissolved LNAPL:** Groundwater samples were collected in 1991 and 1997. During 1997, samples were analyzed for VOCs only, and only shallow wells or piezometers were sampled. Contaminants detected in groundwater samples from the vicinity of the site, along with the maximum level at which they were found and the general depth of the well in which they were found, included:

  - *VOCs:* acetone (150J micrograms per liter [ug/L], shallow), toluene (360J ug/L, shallow; 4J ug/L, deep), ethyl benzene (440J ug/L, shallow), and total xylenes (2,400J ug/L, shallow)
  - *Chlorinated VOCs:* total 1,2-dichloroethene (21 ug/L, shallow; 15 ug/L, intermediate), 1,1-dichloroethane (60 ug/L, shallow; 70 ug/L, intermediate), 1,1-dichloroethene (50 ug/L, shallow; 3J ug/L, intermediate), chloroethane (100J ug/L, shallow; 53 ug/L, deep), vinyl chloride (11J ug/L, shallow; 15J ug/L, intermediate), 1,1,1-trichloroethane (120 ug/L, shallow; 83 ug/L, intermediate; 2J ug/L, deep), trichloroethene (6 ug/L, shallow; 3J ug/L, intermediate), tetrachloroethene (3J ug/L, shallow; 2J ug/L, intermediate)
  - *SVOCs:* 2-methynaphthalene (4,000 ug/L, shallow)
  - *PCBs:* Aroclor-1242 (160 ug/L, shallow) and Aroclor-1260 (97J ug/L, shallow)
  - *Inorganics:* arsenic (total) (92J ug/L, shallow; 5.4J ug/L, deep), barium (total) (1,410J ug/L, shallow; 123J ug/L, intermediate; 117 ug/L, deep), lead (total) (564 ug/L, shallow), zinc (total) (386J ug/L, shallow; 48 ug/L, intermediate; 21.9J ug/L, deep), and cyanide (44.9J ug/L, shallow).

The two shallow groundwater monitoring wells closest to the Des Plaines River that were sampled again in 1997 did not contain detectable levels of VOCs.

[1] A "J" after a sampling result indicates that the result should be considered to be "estimated".

Other Areas of Site

In addition to the groundwater aquifer, three main areas of the site were investigated, as follows:

- *Main excavation area:* This is the area excavated during the IEPA removal action initiated in 1987. The area generally coincides with the area of the former Lenz Oil facility on which the various storage tanks, tanker trucks, and drums were located. The main excavation area is approximately 1.5 acres in size. Shallow and deep soil samples were collected near and in this area.

- *Surface impoundment excavation area:* This area, which is less than a quarter-acre in size, is located to the east of the main excavation area and was the location of a former surface impoundment on the Lenz Oil facility property. This area was excavated during the IEPA removal action. Shallow and deep soil samples were collected near and in this area.

- *Drainage ditch:* This refers to the ditch that runs along the northwestern border of the site. Soil, sediment, and surface water samples were collected from this area.

The investigation results for each of these three areas are discussed below.

**Main excavation area:** For the most part, soil samples collected from in and around this area did not contain significant levels of contaminants. Several isolated samples, typically from just outside the excavation area, did contain some contaminants. Generally, total VOC concentrations in soil samples ranged between 50 and 200 ug/kg. One shallow soil sample located near the west corner of the area (SB19) contained nearly 600 ug/kg total VOCs. The other samples that contained levels of total VOCs ranging from 200 ug/kg (SB22) to 60,000 ug/kg (SB12) were all located along the southern edge of the excavation area, at the "beginning" of the LNAPL plume. PAHs, typically at levels near 300 ug/kg, were also detected in soils collected from along the perimeter or outside of the excavation area. Two samples, SB12 and SB14, contained higher levels of PAHs, with total PAHs in these two samples ranging between 50,000 and 60,000 ug/kg. Six samples, five of which were collected from along the perimeter of the excavation area, contained PCBs at levels greater than 100 ug/kg and in one case at a concentration of 6,700 ug/kg. Elevated levels of inorganic compounds were found in the majority of soil samples.

**Surface impoundment excavation area:** Similar to the results for the samples collected from in and around the main excavation area, samples from the vicinity of the surface impoundment excavation area did not, for the most part, contain significant levels of contaminants. Two samples, SB202 and SB203, located generally to the north of the surface impoundment excavation area, contained levels of total PAHs in the 10,000 to 30,000 ug/kg range. SB202 and another sample in the same general area, SB201, contained PCBs at levels between 660 and 1,000 ug/kg. Elevated levels of inorganic compounds were found in the majority of soil samples.

**Drainage ditch:** Results from surface water, sediment and soil samples collected from or near the drainage ditch showed the presence of a few organic compounds at levels only slightly above detection limits. The concentrations and number of SVOCs and inorganics in drainage ditch sediment and soil samples, however, were of significance. Results for inorganic compounds from samples of drainage ditch surface water were also of note.

All six surface water samples contained elevated levels of several inorganic compounds, including barium, cadmium and zinc. Sediment samples from the ditch generally contained total PAHs in the 30,000 ug/kg range along with elevated levels of metals. Soil samples from both the northern and southern banks of the ditch contained elevated levels of PAHs and some metals. One soil sample from along the northern bank of the ditch contained two PCB congeners at concentrations of 2,500 and 2,800 ug/kg.

In addition to the three areas of the site described above, another area of the site that should be noted is the area around monitoring well G105, located in the main excavation area. On Figure 1 and Figure 2, G105 is identified with the label "P01"; it is located on the Lenz Oil property, northwest of the only building on that property. Monitoring well G105 was installed prior to the initiation of the removal action by IEPA and remained intact after the completion of the removal. To prevent the uncontaminated soil and ash used to backfill the excavation area from becoming recontaminated by the LNAPL and LNAPL-contaminated soil surrounding G105, a layer of visqueen was installed between the well and the excavation backfill to keep the contaminated soil separate from the clean backfill area.

Based on the high concentration of contaminants in the LNAPL which are either carcinogenic or cause non-cancerous negative impacts to human health, or both, EPA's 1999 ROD identified the LNAPL as a principal threat at the site.

**Contaminants of Concern**

The media affected by the site's contamination include groundwater, surface water, sediments, and soil. Since a diverse number of chemicals were detected at the site, the following subset of chemicals which represented the highest risk potential to human health and the environment were used:

- trichloroethene (TCE)
- tetrachloroethene (PCE)
- chloroform
- vinyl chloride
- benzene
- 1,1-dichloroethene
- 1,2-dichloroethene
- PCB isomers
- carcinogenic PAHs
- pesticides

**Risk Characterization**

EPA completed the baseline risk assessment for the site in August 1992. The risk assessment characterized the potential risks to human health and the environment caused by chemicals of potential concern at the site. Exposure was evaluated in relation to two land use scenarios: (1) current land use conditions, including trespassing, residential use, and recreation; and (2) future land use, including residential use of the site and the area adjacent to the site, and short-term risk to on-site workers. The primary exposure pathways evaluated were skin contact with soil, groundwater, surface water, or sediment; and ingestion of soil, groundwater, or surface water.

Risk assessment results indicated that adjacent and future residents or on-site workers or trespassers may be exposed to potential chemicals of concern by touching or ingesting the LNAPL or LNAPL-contaminated soil or groundwater, or by breathing in particles or vapors from the LNAPL or LNAPL-contaminated soil or groundwater. In 2005, EPA requested an evaluation of potential vapor intrusion into the basement of the one residence located on the site. The purpose of the evaluation was to determine whether the indoor air poses a risk to human health due to subsurface vapor intrusion. In November and December 2005, a basement inspection, indoor air sampling, outdoor air sampling, and soil vapor sampling was conducted.

The analytical data were evaluated using the generic target criteria presented in EPA's *Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils* (Subsurface Vapor Intrusion Guidance) (USEPA, 2002). The target criteria were used to screen compounds of potential concern that warranted further evaluation.

Chloroform was detected in one soil gas probe at a concentration of 4.2 parts per billion (ppb), which exceeded the generic target criteria. Chloroform was not detected in the indoor air sample. Therefore, chloroform is not associated with subsurface vapor intrusion. No other VOCs were detected above the generic target criteria in the soil gas samples or outdoor air sample.

For the air sample collected within the basement, two compounds exceeded the target criteria (TCE at 1.3 ppb and PCE at 1.7 ppb). In addition, TCE and PCE were not detected in groundwater samples from piezometers adjacent to the residence. LNAPL samples collected from the residence's well in 1997 (prior to abandonment) did not contain TCE and PCE. Hence, the detections of TCE and PCE inside the residence are likely not associated with subsurface vapor migration. TCE and PCE are chlorinated solvents which are commonly detected in residential air samples due to homeowner-related activities (e.g., household solvents). The detected concentrations of TCE and PCE are within the range of residential background concentrations due to household-related sources. In addition, since 2005, nobody has been living at the residence.

Cancer risks for a future resident using contaminated groundwater from the site ranged from $4x10^{-2}$ to $4x10^{-8}$. A Hazard Index (HI) of 1.7 was also predicted for this pathway. Cancer risks for a future resident using contaminated groundwater from off-site ranged from $1x10^{-4}$ to $1x10^{-5}$, with an HI of 1.7.

The most significant cancer risk for a future on-site receptor due to ingestion or dermal contact with soil was $1x10^{-5}$. For ingestion and dermal contact exposures of a shorter duration, such as for trespassers and short-term workers, the cancer risk was $1x10^{-8}$.

Cancer risks for current and future residents on or adjacent to the site, due to inhalation of contaminants, ranged from $1x10^{-2}$ to $1x10^{-3}$. However, because these numbers were calculated assuming that subsurface soils were actually surface soils, EPA views this risk calculation as overly conservative.

**Ecological Risks**

No ecological risk assessment was performed for the site since the dissolved and non-dissolved LNAPL contaminants are approximately four to twelve feet below ground surface in the aquifer, and are not accessible to environmental receptors. Risk associated with the potential for migration of chemicals into the Des Plaines River would primarily occur via transport of chemicals in groundwater or by migration along underground conduits. The potential risk due to site contaminants entering the river was not quantitatively evaluated because, according to the dilution model used, contaminant levels in samples of groundwater from the four monitoring wells closest to the river showed that groundwater entering the Des Plaines River should not be at levels above ambient water quality criteria. No organic compounds were detected in any of the four monitoring wells near the river. In addition, ten soil borings in the area between the site and an underground pipeline showed that neither the dissolved nor non-dissolved LNAPL contaminants were present. Additionally, no oil seeps were observed along the banks of the Des Plaines River. For these reasons, the site was considered not to pose a risk to the environment.

## 4.0 REMEDIAL ACTIONS

### 4.1 Remedy Selection

On September 30, 1999, EPA signed a ROD which identified the following Remedial Action Objectives (RAOs):

- Prevent exposure to LNAPL and LNAPL-contaminated groundwater, above acceptable risk levels.
- Prevent or minimize further migration of the LNAPL contaminant plume.
- Extract or treat the LNAPL plume in the aquifer.
- Prevent or minimize further migration of LNAPL contaminants to groundwater.
- Achieve federal Maximum Contaminant Levels (MCLs), the Safe Drinking Water Act, and the State standards pursuant to IAC Title 35, Chapter I, Part 620, throughout the plume in a reasonable amount of time.

The ROD separated the site remedy into two phases: Phase I was the LNAPL remedy and Phase II was the groundwater remedy.

The major components of the primary remedy for Phase I included:

- Treatability studies to ensure that solidification/stabilization adequately immobilizes the contaminants
- Excavation of the LNAPL-contaminated material
- Treatment of the LNAPL-contaminated material via solidification/stabilization
- Disposal of solidified/stabilized material in a Corrective Action Management Unit

The ROD further stated that unless EPA, in consultation with IEPA, determined that a specific component listed below was not necessary, the Phase I remedy would also include the following:

- Periodic soil sampling, or some equally protective measure(s), in the vicinity of the pipelines to the west of the site to ensure that LNAPL does not migrate into the pipelines
- Removal and proper disposal of LNAPL and LNAPL-contaminated soil from the area of monitoring well G105, located in the main excavation area
- Institutional controls and deed restrictions, as necessary
- Site fencing and long-term operation and maintenance

For the Phase II cleanup, the ROD recommended implementing a groundwater pump-and-treat system, if necessary, after Phase I was implemented.

In addition, the ROD required that two contingent remedies be studied during the Pre-Design Data Collection (PDDC) activities to determine whether either of the two contingent remedy alternatives (Vacuum Enhanced Recovery and in-situ Low Temperature Thermal Desorption [LTTD]) would be just as protective as the selected Phase I remedy. Vacuum enhanced recovery would involve:

- Pumping the LNAPL using dual-phase extraction wells
- Application of a vacuum to increase the recovery rate of the LNAPL
- Capture and treatment of volatilizing compounds
- Potential use of air injection wells to further enhance the process

As part of the PDDC work plan, a technical review regarding the suitability of in-situ LTTD was conducted and it was determined that this technology was not suitable for application at this site. EPA accepted this determination.

A Consent Decree between a group of PRPs, EPA, and IEPA was negotiated in 2001. The CD required the members of the Lenz Oil RD/RA Group to implement the RD/RA at the site. The CD was entered by the Court on August 14, 2002.

In July 2003, the Lenz Oil RD/RA Group developed a PDDC work plan to obtain the data necessary to design and implement the selected Phase I remedy and investigate the effectiveness of the VER contingent remedy. EPA approved the PDDC work plan in August 2003. The PDDC work was conducted from September 2003 through February 2004.

Based on the results of the PDDC effort, the Lenz Oil RD/RA Group recommended selecting VER as the final Phase I remedy instead of the Phase I remedy that had been selected in the ROD (i.e., Excavation and Treatment via Solidification/Stabilization). EPA requested additional PDDC work to evaluate the recommendation. The Lenz Oil RD/RA Group developed a supplemental PDDC work plan to obtain the requested information, and EPA approved the work plan in June 2005. The supplemental PDDC work was conducted from August 2005 through February 2006.

Information obtained during the supplemental PDDC studies showed that site conditions were substantially different from how they were defined at the time the ROD was signed. The major differences included:

- The depth of the bedrock surface is shallower that shown by pre-ROD studies, indicating that the quantity of LNAPL-affected bedrock is greater than referenced in the pre-ROD studies.
- The amount of LNAPL may be significantly less than originally estimated in the ROD.
- The LNAPL layer is located within the fractures/bedding planes of competent hard bedrock, rather than in the weathered bedrock and overburden soil as indicated in the ROD.

The original RI studies indicated that the LNAPL was shallow and would be easy to excavate. However, the PDDC studies indicated that the LNAPL layer was deeper and located more in the competent bedrock, which would require a lot more hydraulic hammering or blasting to remove the LNAPL-contaminated material. This suggested that the selected Phase I remedy would be harder to implement, more disruptive to nearby residents and businesses, and more costly than originally anticipated. In addition, the amount of LNAPL could be significantly less than originally estimated in the ROD.

EPA, in consultation with IEPA, decided that the VER contingent Phase I remedy was preferable to the selected Phase I remedy only if the LNAPL plume was contained. EPA issued an ESD on April 10, 2007, to change the Phase I remedy from Excavation and Treatment via Solidification/ Stabilization to the Vacuum Enhanced Recovery contingent alternative.

EPA approved the Final Remedial Design in April 2008. On June 2, 2008, the Lenz Oil RD/RA Group submitted the Phase I RA Work Plan to EPA. EPA approved the RA Work Plan on January 7, 2009, and provided authorization to proceed with construction of the Phase I RA.

### 4.2 Remedy Implementation

On-site remedial action construction activities began in March 2009. The work completed during the Lenz Oil Phase I RA generally consisted of construction or installation of a containment wall around the LNAPL plume, a groundwater and LNAPL collection/recovery system, a groundwater treatment system, a vapor extraction and air injection system, a treatment building, and a network of groundwater/LNAPL and vapor monitoring points (see Figure 2).

The work activities completed at the site included the following:

- Mobilization of equipment, facilities and personnel
- Provision and maintenance of temporary facilities and controls
- Demolition and removal of dilapidated buildings within the work area
- Construction of a 1,300-linear-foot containment wall surrounding the LNAPL area; the wall was constructed as a combination of a slurry wall (875 feet) and a grout curtain (425 feet)
- Construction of four VER trenches, each 220 feet to 250 feet long and 16 feet deep
- Construction of a 70-gallon-per-minute dewatering system to lower the groundwater table to enhance LNAPL recovery and vapor extraction; the water treatment equipment includes an oil-water separator, a flocculation/coagulation chemical addition unit with a diffused-air floatation unit, cartridge filters, and an air stripper; and treated water is discharged to a drainage ditch along the north boundary of the site
- Construction of an 1,840-cubic-feet-per-minute vapor extraction system with an accompanying air injection system
- Construction of a treatment building which houses the dewatering treatment system, vapor extraction system, and air injection system
- Installation of a network of LNAPL and vapor monitoring points
- Installation, connection, and coordination of new water, electric, telephone, and natural gas utilities to the treatment building, including existing utility crossings
- Asphalt or vegetation surface restoration
- Commissioning of the facility including preliminary operation of all equipment on clean water
- Demobilization and construction closeout

During the construction activities, several changes to the approved construction plans were required. EPA was notified prior to implementation of the changes, which included the following items:

- The slurry wall and grout curtain lengths were modified
- The treatment building was relocated
- The treatment building foundation subgrade installation was augmented
- The treated water discharge outfall was relocated from the Des Plaines River to the drainage ditch along the north boundary of the site.
- Five air injection points along the south side of Jeans Road were not installed
- Three LNAPL monitoring points along the south side of Jeans Road were not installed
- The air injection blower equipment size was adjusted
- The water heater equipment was resized
- An electrical services disconnect was added

The Phase I remedy is currently operating to capture and remove LNAPL. Although the ROD stated that the need for a Phase II groundwater remedy would be evaluated after the completion of Phase I, EPA believes that the site will likely not need a Phase II cleanup since the LNAPL plume is completely contained and the LNAPL-contaminated groundwater is being treated on site through the VER system.

In September 2009, with the signing of the Preliminary Close-Out Report, EPA determined that the site achieved construction completion status. EPA and the State determined that all RA construction activities were performed according to specifications. EPA approved the PRPs' Final Phase I RA Construction Completion Report in November 2010.

### 4.3 Institutional Controls

Institutional controls are non-engineered instruments, such as administrative and legal controls that help to minimize the potential for exposure to contamination and that protect the integrity of the remedy. ICs are required to assure long-term protectiveness for any areas which do not allow for UU/UE. ICs are also required to maintain the integrity of the remedy.

The 1999 ROD for the Lenz Oil site included the imposition of proprietary controls and other ICs in order to prevent use of contaminated groundwater, prevent future development of the site that would interfere with the remedy, and assure the integrity of the remedial action components. The ICs for the site are intended to prevent the development and use of land within the site boundary that would interfere with the site remedy, thereby assuring the integrity of the VER system and other components of the remedial action.

In addition to using ICs to minimize the potential for exposure to site contaminants, the site is fenced and the gate is locked. The gate and fence, which are forms of engineering controls, are checked as part of regular site inspections.

The following table summarizes the ICs that are or will be implemented at the site.

**Table 2 - Institutional Controls Summary Table**

| Media, Engineered Controls & Areas that Do Not Support UU/UE under Current Conditions | IC Objective | IC Instrument Implemented or Planned |
|---|---|---|
| Site boundary/site area | Prohibit use of groundwater underlying the site | Environmental covenant for the property south of Jeans Road was recorded on 02/14/14 (see Attachment 5); environmental covenant for Lenz Oil property has been signed and needs to be recorded |
| RA components such as VER system | Prohibit use of land underlying the site that would interfere with remedy components and remedy implementation | Environmental covenant for the property south of Jeans Road was recorded on 02/14/14 (see Attachment 5); environmental covenant for Lenz Oil property has been signed and needs to be recorded |

The site figures attached to this document outline the site land boundary. These maps depict the current conditions of the site and the areas which do not allow for UU/UE. The environmental covenant for the property south of Jeans Road (Attachment 5) also describes the areas that are subject to the restrictions specified in that instrument.

Based on inspections and interviews, EPA finds that the existing land use at the site is consistent with the stated objectives of the ICs. Also, there is no evidence of groundwater uses at the site which are inconsistent with the IC objectives.

### 4.4 System Operations/Operation and Maintenance

Operation and maintenance (O&M) of the VER system is performed by the PRPs in accordance with the Operation and Maintenance Plan (O&M Plan) contained in the Final Remedial Design document dated March 2008 (approved by EPA in April 2008).

Pursuant to the O&M Plan, the influent and effluent from the treatment system is monitored on a monthly basis, and samples are analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX), as well as oil and grease, to demonstrate compliance with the National Pollutant Discharge Elimination System (NPDES) substantive requirements established by IEPA.[2] Inspections of the physical plant are also carried out during those monitoring events. The O&M Plan also requires that groundwater and LNAPL levels be measured on a monthly basis at specified locations inside and outside of the containment wall, that soil vapor concentrations be routinely measured from the VER trenches piping, and that soil vapor vacuum measurements be recorded on a monthly basis at all vapor monitoring points inside the containment wall.

According to the O&M Plan, groundwater monitoring during operation of the Phase I remedy is supposed to occur on an annual basis at specified locations, with samples analyzed for VOCs and metals. Additionally, the O&M Plan requires that LNAPL samples be collected from the floating LNAPL layer at designated locations, and analyzed for VOCs, SVOC, PCBs, metals, and cyanide, according to the following schedule: once before the remedial action, at least once during operation of the remedy, and once after remedy operations cease.

An LNAPL sampling event conducted in November 2007 is considered to represent the "before the remedial action" sampling event. LNAPL sampling was also conducted in June 2013 (during operation of the remedy).

During the preparation of this FYR, EPA discovered that the required annual groundwater monitoring has not been conducted due to a misunderstanding about the O&M Plan's requirements for groundwater monitoring. Instead of annually, groundwater monitoring has been conducted on the same schedule as the LNAPL sampling discussed above. As a result, post-ROD groundwater monitoring data is available only for sampling events conducted in November 2007 (baseline event) and June 2013. The PRPs' contractor has been notified of this problem, and groundwater monitoring will be conducted on an annual basis in the future, as required by the O&M Plan.

[2] There is not an NPDES permit for this site, since the work is being conducted pursuant to CERCLA. The NPDES discharge requirements issued by IEPA represent the substantive requirements of what would be in such a permit.

Based on the operating flow data, as of December 2013 the VER system has pumped and treated approximately 74 million gallons of water since the system began operating in February 2010. During that time, approximately 1,300 gallons and 9,450 pounds of free phase LNAPL have been recovered. (See Attachment 3.)

Long-term protectiveness requires compliance with land use restrictions that prohibit interference with the remedy and use of contaminated groundwater. To ensure compliance with the use restrictions, the O&M Plan should be modified to ensure that effective ICs are maintained and monitored and to provide for an annual certification to EPA.

## 5.0 PROGRESS SINCE LAST FIVE-YEAR REVIEW

This is the first FYR for the site.

Activities conducted at the site since the completion of construction activities include the following:

- Performed inspections of the fences, gates, extraction and monitoring wells;
- Operation of the VER system;
- Performed routine cleaning and maintenance of the VER system;
- Performed monthly influent and effluent sampling (2010-2014);
- Performed a single groundwater monitoring event (2013);
- Cut grass and trimmed trees, as necessary; and
- Conducted work towards getting all required ICs implemented.

## 6.0 FIVE-YEAR REVIEW PROCESS

### 6.1 Administrative Components

The Lenz Oil FYR was prepared by Scott Hansen, EPA Remedial Project Manager for the site. Doyle Wilson, State Project Manager with the IEPA, assisted in the review. The FYR, which began on 3/28/2013, consisted of the following components:

- Document review
- Data review
- Site inspection
- FYR report development and review

### 6.2 Community Notification and Involvement

Due to an administrative oversight, EPA did not place an ad in a local newspaper regarding the fact that a five-year review was being conducted for the Lenz Oil site. The completed FYR and background data will be available in the site information repository and on EPA's website for public viewing, and EPA will place an ad in a local newspaper to notify the community that a five-year review has been completed.

### 6.3 Document Review

The site documents reviewed in preparation of this FYR report include the following:

- RD/RA Consent Decree
- ROD
- ESD
- Lenz Oil site file and status reports
- Monitoring reports / monitoring data

### 6.4 Data Review

As noted in Section 4.4 of this FYR, groundwater monitoring has been conducted only once (in June 2013, when LNAPL samples were collected) since the VER system became operational in early 2010. (Groundwater monitoring will be conducted annually from now on, as required by the O&M Plan.) The groundwater samples were analyzed for VOCs and metals, and the LNAPL samples were analyzed for VOCs, SVOCs, PCBs, metals, and cyanide. Monitoring of treatment system influent and effluent has been conducted on a monthly basis since February 2010, with samples analyzed for BTEX and oil and grease.

As part of this FYR, EPA reviewed all comprehensive site reports, including the monitoring results from the sampling events described above. The groundwater and LNAPL analytical results were compared to the baseline sampling data from November 2007. Attachments 1 and 2 contain all the relevant analytical data that were reviewed, including the 2007 groundwater data (Attachment 1A), the 2003 groundwater data (Attachment 1B), the 2013 LNAPL data (Attachment 1C), and the VER system influent and effluent data from 2010 through early 2014 (Attachments 2A and 2B, respectively).

Based on a review of the groundwater analytical results from 2007 and 2013, the parameter results are either staying consistent or decreasing. The monthly effluent sample results show that the treated groundwater meets the discharge requirements. The volume of water pumped and treated each month, and the amount of free-phase LNAPL recovered by the VER treatment process, is presented in Attachment 3.

### 6.5 Site Inspection

The site inspection for this FYR was conducted on March 17, 2014. In attendance were: Scott Hansen, EPA; Doyle Wilson, IEPA; Tim Ree, CRA (PRP contractor); and numerous members of the Lenz Oil PRP group. The purpose of the inspection was to assess current site conditions and the protectiveness of the remedy, including the presence of fencing to restrict access, the integrity of the trenches, and general conditions of the VER system.

A walk was taken around the property. Site access is available through a locked gate which encloses the site treatment building. The site appeared to be in good condition and well vegetated. The Site Inspection Checklist completed by EPA is included as Attachment 4.

During the site inspection, CRA informed EPA that the air injection wells have only been turned on once during the system's operation. The air injection system can only be turned on if the water levels within the containment wall are below the injection points. CRA explained that the water levels have been below the injection points on only one occasion since the VER system began operating. As a result, the air injection system has generally not been utilized as part of the VER system to date.

## 7.0 TECHNICAL ASSESSMENT

### 7.1 Question A: Is the remedy functioning as intended by the decision documents? Yes.

*Remedial Action Performance:* The remedial action selected in the 1999 ROD as revised by the 2007 ESD has been implemented and remains functional, operational, and effective. With continued maintenance and monitoring of the VER system inside the security perimeter fence, the source area remedy will ensure that the site remains protective.

*Cost of System Operations/O&M:* Current annual O&M costs are not available since the site O&M activities are being conducted by the PRPs and they are not required to provide that information.

*Opportunities for Optimization:* No opportunities for optimization have been identified to date.

*Early Indicators of Potential Remedy Failure:* No early indicators of potential remedy failure were noted during the review. Maintenance activities have been consistent with expectations, and groundwater monitoring results show that the parameter results remain consistent or are decreasing.

*Implementation of Institutional Controls and Other Measures:* The 1999 ROD required the imposition of proprietary controls and other ICs in order to prevent use of contaminated groundwater, prevent future development of the site that would interfere with the remedy, and assure the integrity of the remedial action components. Site access and use is restricted with a security perimeter fence. Environmental covenants for both properties that comprise the site, which provide notice of the need to restrict development on the property, restrict groundwater use, and protect the integrity of remedial components, have been signed by all parties and one of the environmental covenants has been recorded (see Attachment 5). The ICs, when fully implemented, will help ensure long-term protectiveness of the remedy.

### 7.2 Question B: Are the exposure assumptions, toxicity data, cleanup levels, and remedial action objectives used at the time of the remedy selection still valid? Yes.

*Changes in Standards and To-Be-Considereds:* The standards outlined in the 1999 ROD are still valid at the site, and they were not changed by the 2007 ESD.

*Changes in Exposure Pathways:* No changes in the site conditions that affect exposure pathways were identified as part of the FYR. There are no current or known planned changes in the site land use, and there are no newly identified contaminants or contaminant sources.

*Changes in Toxicity and Other Contaminant Characteristics:* Since the time of remedy selection, the toxicity factors for two site contaminants of concern have changed. Specifically, the toxicity factors for TCE and PCE were changed in 2011 and 2012, respectively. The groundwater cleanup standards for TCE and PCE at the Lenz Oil site were established in the ROD and were based on the federal MCLs. EPA headquarters is reportedly evaluating whether the MCLs for these two contaminants need to be revised, but the MCLs are currently the same as at the time of the ROD. Even though the toxicity factors have changed, such changes do not impact the current protectiveness of the remedy because all of the LNAPL contamination at the site is contained within the subsurface containment wall and is still undergoing treatment by the selected remedy.

*Changes in Risk Assessment Methodologies:* Changes in risk assessment methodologies since the time of remedy selection are not significant and do not call into question the protectiveness of the remedy.

*Expected Progress Towards Meeting Remedial Action Objectives:* The RAOs for the selected remedy are listed in Section 4.1 of this FYR. The remedy has been in operation since February 2010 and continues to extract and remove LNAPL from the aquifer. The remedy has already met some of the RAOs and is making progress toward achieving the groundwater cleanup standards.

### 7.3 Question C: Has any other information come to light that could call into question the protectiveness of the remedy? No.

No other information has come to light that calls into question the protectiveness of the remedy.

### 7.4 Technical Assessment Summary

According to the data and documents reviewed and observations made during the site inspection, the remedy is functioning as intended by the 1999 ROD and 2007 ESD. There have been no significant changes in the physical conditions at the site, cleanup standards, contaminant toxicity, or exposure pathways that would affect the protectiveness of the remedy. No additional information has been identified that would call into question the protectiveness of the remedy.

## 8.0 ISSUES

The following issues were identified during the FYR process that could impact the protectiveness of the remedy:

**Table 3 – Issues that Impact Protectiveness**

| Issue | Affects Current Protectiveness? | Affects Future Protectiveness? |
|---|---|---|
| The second of two environmental covenants needs to be implemented | No | Yes |
| Need to ensure long-term stewardship | No | Yes |

## 9.0 RECOMMENDATIONS AND FOLLOW-UP ACTIONS

**Table 4 – Recommendations and Follow-up Actions**

| Issue | Recommendations/ Follow-up Actions | Party Responsible | Oversight Agency | Milestone Date | Affects Protectiveness | |
|---|---|---|---|---|---|---|
| | | | | | Current | Future |
| The second of two environmental covenants needs to be implemented | Record the environmental covenant for the Lenz Oil property | PRPs | EPA | 06/30/2014 | No | Yes |
| Need to ensure long-term stewardship | Modify the O&M plan to ensure that effective ICs are maintained and monitored | PRPs | EPA | 09/30/2014 | No | Yes |

## 10.0 PROTECTIVENESS STATEMENT

The assessment of this FYR has found that the remedy at the Lenz Oil site currently protects human health and the environment since all known exposure pathways have been eliminated. However, in order for the remedy to be protective in the long term, legally effective use restrictions that protect the integrity of the remedy components, prohibit land uses that interfere with the remedy, and prohibit the use of contaminated groundwater will need to be implemented and maintained. Long-term protectiveness requires compliance with effective ICs, including land use restrictions that prohibit interference with the VER system.

## 11.0 NEXT REVIEW

EPA performs statutory reviews on remedies that result in hazardous substances, pollutants or contaminants remaining on site above levels that allow for unlimited use and unrestricted exposure. Since hazardous substances, pollutants or contaminants are contained on the site and will potentially remain above EPA and IEPA regulatory standards in the future, the site will require ongoing FYRs. The next five-year review report for the Lenz Oil site is required five years from the completion date of this review.

# APPENDIX A – FIGURES

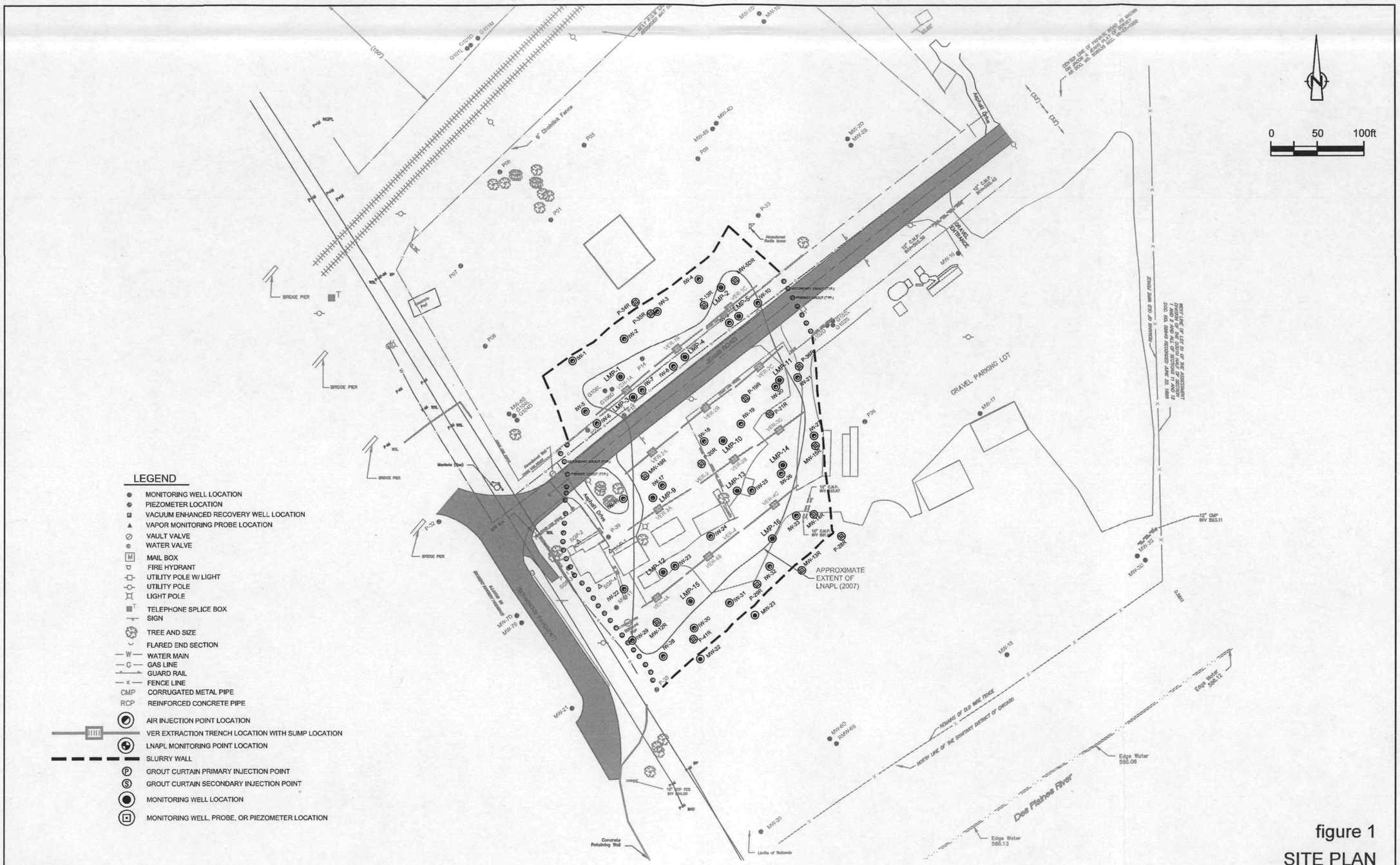
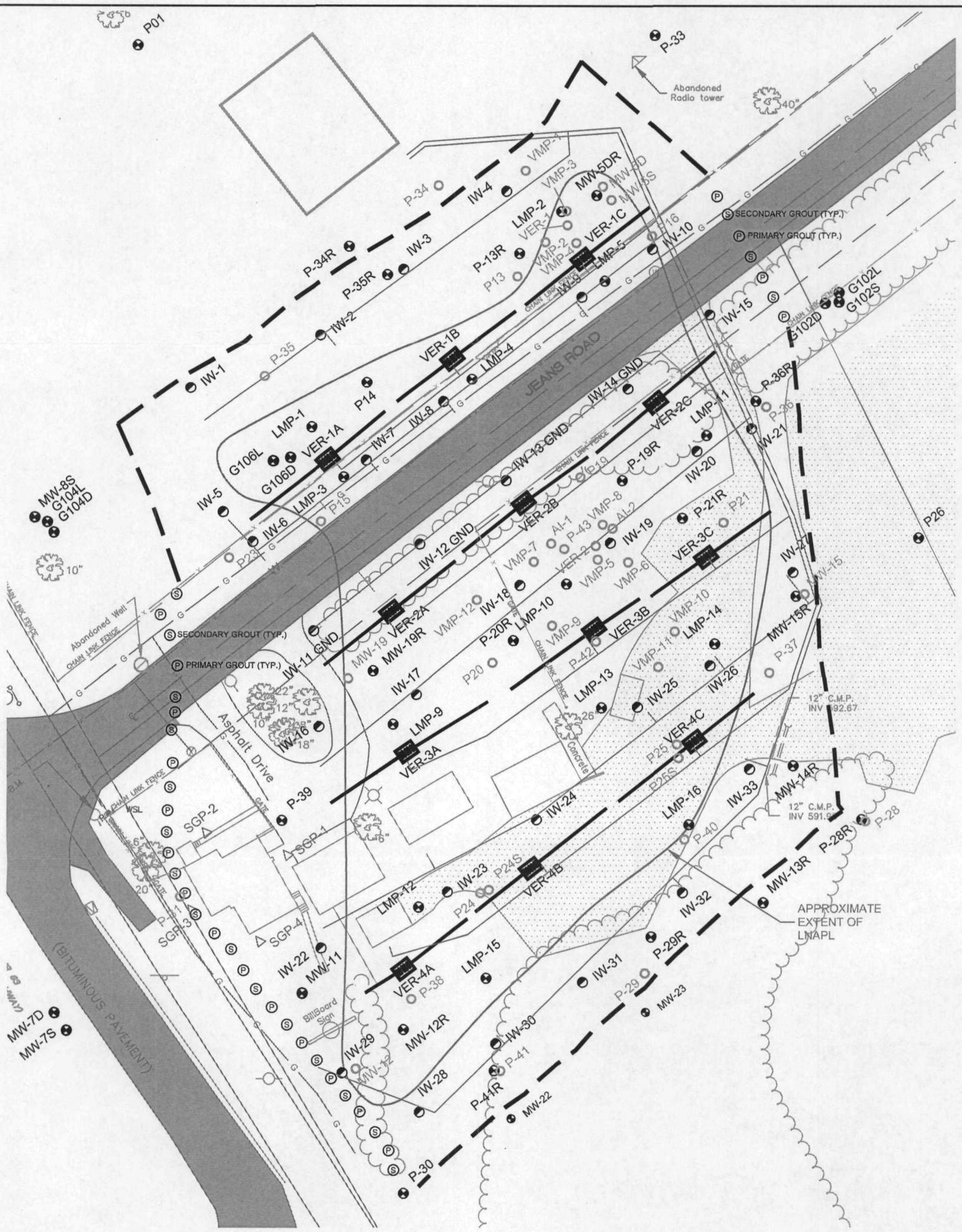



figure 1

SITE PLAN
LENZ OIL SITE
*Lemont, Illinois*

015169-23(HANS126)GN-SP001 APR 4/2012




LEGEND

- VER EXTRACTION TRENCH LOCATION WITH SUMP LOCATION
- MONITORING WELL, PIEZOMETER, OR LNAPL MONITORING POINT LOCATION
- AIR INJECTION POINT LOCATION
- VAPOR MONITORING PROBE LOCATION
- VAULT VALVE
- WATER VALVE
- MAIL BOX
- FIRE HYDRANT
- UTILITY POLE W/ LIGHT
- UTILITY POLE
- LIGHT POLE
- TELEPHONE SPLICE BOX
- SIGN
- TREE AND SIZE
- FLARED END SECTION
- W — WATER MAIN
- G — GAS LINE
- GUARD RAIL
- x — FENCE LINE
- CMP CORRUGATED METAL PIPE
- RCP REINFORCED CONCRETE PIPE

- SLURRY WALL
- (P) GROUT CURTAIN PRIMARY INJECTION POINT
- (S) GROUT CURTAIN SECONDARY INJECTION POINT
- ABANDONED WELL OR PIEZOMETER LOCATION

0 20 50ft

figure 2

VER SYSTEM AND WELL LOCATIONS
LENZ OIL SITE
*Lemont, Illinois*

015169-23(HANS126)GN-SP002 APR 4/2012

# APPENDIX B – ATTACHMENTS

**Attachment 1**

# Attachment 1A

# Groundwater Analytical Data from November 2007

## TABLE 3.4

## GROUNDWATER SAMPLE ANALYTICAL DATA - NOVEMBER 2007
## LENZ OIL SITE
## LEMONT, ILLINOIS

| Location | Date | Duplicate [4] | 1,1,1-Trichloroethane | 1,1-Dichloroethane | 1,2-Dichlorobenzene | Benzene | Chlorobenzene | Chloroethane | cis-1,2-Dichloroethene | Cyclohexane | Vinyl chloride |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Units [1] | | | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L |
| Class I Standards [2] | | | 200 | NA | 600 | 5 | 100 | NA | 70 | NA | 2 |
| G-101D | 11/28/07 | | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 0.5 | < 1 | < 1 |
| G-101M | 11/28/07 | | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 0.5 | < 1 | < 1 |
| G-106D | 11/27/07 | | < 1 | 1.4 | 3.2 | 11 | 1 | 2.7 | 0.51 | 1.6 | < 1 |
| MW-2D | 11/28/07 | | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 0.5 | < 1 | < 1 |
| MW-2S | 11/28/07 | | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | 0.58 | < 1 | < 1 |
| MW-3D | 11/29/07 | | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 0.5 | < 1 | < 1 |
| MW-3S | 11/29/07 | | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 0.5 | < 1 | < 1 |
| MW-5D | 11/27/07 | | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 0.5 | < 1 | < 1 |
| MW-6D | 11/28/07 | | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 0.5 | < 1 | < 1 |
| MW-7D | 11/27/07 | | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 0.5 | < 1 | < 1 |
| MW-7D | 11/27/07 | X | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 0.5 | < 1 | < 1 |
| MW-7S | 11/27/07 | | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 0.5 | < 1 | < 1 |
| MW-8S | 11/28/07 | | 2 | < 1 | < 1 | < 1 | < 1 | < 1 | < 0.5 | < 1 | < 1 |
| MW-16 | 11/26/07 | | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 0.5 | < 1 | < 1 |
| MW-17 | 11/29/07 | | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 0.5 | < 1 | < 1 |
| MW-17 | 11/29/07 | X | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 0.5 | < 1 | < 1 |
| MW-18 | 11/29/07 | | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | 1.5 | < 1 | 4.3 |
| MW-20 | 11/29/07 | | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 0.5 | < 1 | < 1 |
| MW-21 | 11/27/07 | | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 0.5 | < 1 | < 1 |
| RMW-6S | 11/28/07 | | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 0.5 | < 1 | < 1 |

Notes
1 Concentrations reported in micrograms per liter (ug/L)
2 Illinois Administrative Code (IAC) Class I Drinking Water Criteria
3 Not applicable (NA)
4 Duplicate sample collected
5 Less than symbol (<) indicates parameter was not detected above respective reporting limit
6 "J" indicates concentration is estimated
Concentrations enclosed in bold outline exceed IAC Class I Criteria

## TABLE 3.4

## GROUNDWATER SAMPLE ANALYTICAL DATA - NOVEMBER 2007
## LENZ OIL SITE
## LEMONT, ILLINOIS

| Location | Date | Duplicate [4] | Units [1] / Class I Standards [2] | Aluminum µg/L NA [3] | Barium µg/L 2000 | Calcium µg/L NA | Chromium µg/L 100 | Copper µg/L 650 | Iron µg/L 5000 | Lead µg/L 7.5 | Magnesium µg/L NA | Manganese µg/L 150 | Nickel µg/L 100 | Potassium µg/L NA | Sodium µg/L NA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| G-101D | 11/28/07 | | | < 50 | < 100 | 100000 | < 5 | < 5 | 2140 | < 3 | 43600 | 39.2 | < 25 | 3630 | 37900 |
| G-101M | 11/28/07 | | | < 50 | < 100 | 111000 | < 5 | < 5 | < 100 | < 3 | 55100 | < 20 | < 25 | 2260 | 11700 |
| G-106D | 11/27/07 | | | < 50 | < 100 | 63900 | < 5 | < 5 | 356 | < 3 | 28400 | 32 | < 25 | 71700 | 142000 |
| MW-2D | 11/28/07 | | | < 50 | < 100 | 166000 | < 5 | < 5 | 2430 | < 3 | 85500 | 52 | < 25 | 5020 | 54500 |
| MW-2S | 11/28/07 | | | < 50 | 102 | 161000 | 5.4 | < 5 | 2620 | < 3 | 64300 | 171 | < 25 | 10400 | 271000 |
| MW-3D | 11/29/07 | | | < 50 | < 100 | 178000 | < 5 | < 5 | 2760 | < 3 | 96500 | 37.8 | < 25 | 4930 | 47100 |
| MW-3S | 11/29/07 | | | < 50 | < 100 | 154000 | < 5 | < 5 | 2720 | < 3 | 79800 | 118 | < 25 | 5350 | 63600 |
| MW-5D | 11/27/07 | | | < 50 | < 100 | 106000 | < 5 | < 5 | 2950 | < 3 | 49800 | 86.9 | < 25 | 6190 | 104000 |
| MW-6D | 11/28/07 | | | < 50 | < 100 | 172000 | < 5 | < 5 | 2400 | < 3 | 86700 | 54.5 | < 25 | 4940 | 103000 |
| MW-7D | 11/27/07 | | | < 50 | < 100 | 134000 J [6] | 5.1 | < 5 | 3110 J | < 3 | 60300 J | 60.6 J | < 25 | 8000 | 342000 J |
| MW-7D | 11/27/07 | X | | < 50 | < 100 | 68700 J | < 5 | < 5 | 1350 J | < 3 | 39900 J | 325 J | < 25 | 3760 | 87700 J |
| MW-7S | 11/27/07 | | | 1040 | 130 | 240000 | 13.3 | 6.4 | 9010 | < 3 | 128000 | 222 | < 25 | 8380 | 533000 |
| MW-8S | 11/28/07 | | | < 50 | < 100 | 122000 | 37.1 | < 5 | 1290 | < 3 | 70400 | 26.1 | 29 | 5010 | 145000 |
| MW-16 | 11/26/07 | | | < 50 | < 100 | 122000 | < 5 | < 5 | 2230 | < 3 | 64300 | 191 | < 25 | 6490 | 194000 |
| MW-17 | 11/29/07 | | | 203 | < 100 | 122000 | 6 | < 5 | 2320 J | 5.2 | 76000 | 300 | 29.9 | 7390 | 19600 |
| MW-17 | 11/29/07 | X | | 129 | < 100 | 108000 | < 5 | < 5 | 1700 J | < 3 | 67000 | 263 | < 25 | 7340 | 20500 |
| MW-18 | 11/29/07 | | | 50.1 | < 100 | 116000 | < 5 | 6 | 4070 | < 3 | 68700 | 138 | 318 | 28900 | 54000 |
| MW-20 | 11/29/07 | | | < 50 | < 100 | 149000 | 71.7 | < 5 | 5210 | < 3 | 69400 | 114 | 216 | 7120 | 196000 |
| MW-21 | 11/27/07 | | | < 50 | 493 | 360000 | 318 | < 5 | 10700 | < 3 | 223000 | 1300 | 209 | 8760 | 391000 |
| RMW-6S | 11/28/07 | | | 145 | 105 | 137000 | < 5 | 12.2 | 3310 | < 3 | 62300 | 412 | < 25 | 158000 | 52000 |

Notes

1 Concentrations reported in micrograms per liter (ug/L)

2 Illinois Administrative Code (IAC) Class I Drinking Water Criteria

3 Not applicable (NA)

4 Duplicate sample collected

5 Less than symbol (<) indicates parameter was not detected above respective reporting limit

6 "J" indicates concentration is estimated

Concentrations enclosed in bold outline exceed IAC Class I Criteria

# Attachment 1B

# Groundwater Analytical Data from June 2013

**GROUNDWATER SAMPLE ANALYTICAL DATA - JUNE 2013**
**LENZ OIL SITE**
**LEMONT, ILLINOIS**

| | | | Aluminum | Antimony | Arsenic | Barium | Beryllium | Cadmium | Calcium | Chromium | Cobalt | Copper | Iron | Lead | Magnesium |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Units [1] | | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L |
| | Class I Standards [2] | | NA [3] | 6 | 10 | 2000 | 4 | 5 | NA | 100 | 1000 | 650 | 5000 | 75 | NA |
| Location | Date | Duplicate [4] | | | | | | | | | | | | | |
| G-101D | 6/25/13 | | < [5] 200 | < 10 | < 10 | 31 J [6] | < 5 | < 2 | 120000 J | 4 J | < 7 | < 25 | 1100 | < 3 | 58000 J |
| G-101M | 6/25/13 | | < 200 | < 10 | < 10 | 17 J | < 5 | < 2 | 110000 J | < 5 | < 7 | < 25 | < 100 | < 3 | 53000 J |
| G-106D | 6/26/13 | | < 200 | < 10 | < 10 | 86 J | < 5 | < 2 | 120000 J | < 5 | < 7 | < 25 | 1700 | < 3 | 47000 J |
| MW-2D | 6/26/13 | | < 200 | < 10 | < 10 | 29 J | < 5 | < 2 | 190000 J | < 5 | < 7 | < 25 | 2200 | < 3 | 97000 J |
| MW-2S | 6/26/13 | | < 200 | < 10 | < 10 | 49 J | < 5 | < 2 | 130000 J | 3.2 J | < 7 | < 25 | 440 | < 3 | 50000 J |
| MW-3D | 6/24/13 | | < 200 | < 10 | < 10 | 31 J | < 5 | < 2 | 190000 J | 2.7 J | < 7 | < 25 | 2900 | < 3 | 97000 J |
| MW-3S | 6/24/13 | | 330 | < 10 | 3.7 J | 44 J | < 5 | < 2 | 100000 J | 17 | 21 | < 25 | 890 | < 3 | 46000 J |
| MW-5DR | 6/26/13 | | < 200 | < 10 | < 10 | 47 J | < 5 | < 2 | 160000 J | < 5 | < 7 | < 25 | 2400 | < 3 | 79000 J |
| MW-6D | 6/24/13 | | 220 | < 10 | < 10 | 36 J | < 5 | < 2 | 150000 J | < 5 | < 7 | < 25 | 2100 | < 3 | 75000 J |
| MW-6S | 6/24/13 | | < 200 | < 10 | 11 | 26 J | < 5 | < 2 | 58000 J | < 5 | < 7 | < 25 | 670 | < 3 | 24000 J |
| MW-7D | 6/25/13 | | < 200 | < 10 | < 10 | 54 J | < 5 | < 2 | 92000 J | 30 | < 7 | < 25 | 1100 | < 3 | 63000 J |
| MW-7S | 6/25/13 | | < 200 | < 10 | < 10 | 140 J | < 5 | < 2 | 190000 J | < 5 | < 7 | < 25 | 2800 | < 3 | 100000 J |
| MW-8S | 6/26/13 | | < 200 | 5 J | < 10 | 89 J | < 5 | < 2 | 110000 J | 26 | 3.3 J | < 25 | 430 | < 3 | 65000 J |
| MW-8S | 6/26/13 | X | < 200 | 2 J | < 10 | 87 J | < 5 | < 2 | 110000 J | 24 | 3.4 J | < 25 | 360 | < 3 | 63000 J |
| MW-16 | 6/25/13 | | < 200 | < 10 | 13 | 74 J | < 5 | < 2 | 100000 J | 12 J | 2.8 J | < 25 | 5900 | < 3 | 51000 J |
| MW-16 | 6/25/13 | X | 240 | < 10 | 12 | 77 J | < 5 | < 2 | 100000 J | 41 J | 3.7 J | 7.5 J | 6300 | < 3 | 52000 J |
| MW-17 | 6/26/13 | | 1300 | < 10 | < 10 | 25 J | < 5 | < 2 | 46000 J | 4.3 J | < 7 | 9.8 J | 2100 | < 3 | 17000 J |
| MW-18 | 6/25/13 | | 130 J | < 10 | 7 J | 38 J | < 5 | < 2 | 72000 J | 2.5 J | 3.8 J | < 25 | 1900 | < 3 | 33000 J |
| MW-20 | 6/24/13 | | 120 J | < 10 | 4.2 J | 60 J | < 5 | < 2 | 95000 J | 120 | 5.5 J | 5.7 J | 2300 | < 3 | 41000 J |
| MW-21 | 6/25/13 | | < 200 | < 10 | < 10 | 290 | < 5 | < 2 | 290000 J | 310 | 12 | 12 J | 6300 | < 3 | 150000 J |

GROUNDWATER SAMPLE ANALYTICAL DATA - JUNE 2013
LENZ OIL SITE
LEMONT, ILLINOIS

| Location | Date | Duplicate [4] | Manganese | Nickel | Potassium | Selenium | Sodium | Thallium | Vanadium | Zinc | 1,1,1-Trichloroethane | 1,1-Dichloroethane | 1,2,4-Trichlorobenzene | 1,2-Dichlorobenzene | 1,3-Dichlorobenzene | 1,4-Dichlorobenzene | 2-Butanone (Methyl ethyl ketone) (MEK) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Units [1] | | | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L |
| Class I Standards [2] | | | 150 | 100 | NA | 50 | NA | 2 | 49 | 5000 | 200 | 1400 | 70 | 600 | NA | 75 | 4200 |
| G-101D | 6/25/13 | | 40 | 3.4 J | 3900 J | < 5 | 23000 J | < 10 | < 7 | < 50 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 10 |
| G-101M | 6/25/13 | | < 15 | < 40 | 1600 J | < 5 | 8500 J | < 10 | < 7 | < 50 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 10 |
| G-106D | 6/26/13 | | 85 | < 40 | 11000 | < 5 | 160000 | 5.0 J | < 7 | < 50 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 10 |
| MW-2D | 6/26/13 | | 40 | < 40 | 4500 J | < 5 | 38000 | < 10 | < 7 | < 50 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 10 |
| MW-2S | 6/26/13 | | 110 | 6.5 J | 3900 J | < 5 | 140000 | < 10 | < 7 | < 50 | < 1 | 0.48 J | < 1 | < 1 | < 1 | < 1 | < 10 |
| MW-3D | 6/24/13 | | 33 | < 40 | 4000 J | < 5 | 37000 J | < 10 | < 7 | < 50 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 10 |
| MW-3S | 6/24/13 | | 500 | 17 J | 3800 J | < 5 | 29000 J | < 10 | < 7 | < 50 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 10 |
| MW-5DR | 6/26/13 | | 48 | < 40 | 4000 J | < 5 | 54000 | < 10 | < 7 | < 50 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 10 |
| MW-6D | 6/24/13 | | 55 | < 40 | 4200 J | < 5 | 77000 J | < 10 | < 7 | < 50 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 10 |
| MW-6S | 6/24/13 | | 160 | 7.6 J | 42000 J | < 5 | 35000 J | < 10 | < 7 | < 50 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 10 |
| MW-7D | 6/25/13 | | 13 J | 20 J | 9500 J | < 5 | 160000 J | < 10 | < 7 | < 50 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 10 |
| MW-7S | 6/25/13 | | 30 | < 40 | 6600 J | < 5 | 620000 J | 5.8 J | < 7 | < 50 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 10 |
| MW-8S | 6/26/13 | | 120 | 19 J | 6100 | < 5 | 140000 | < 10 | < 7 | < 50 | 0.85 J | < 1 | < 1 | < 1 | < 1 | < 1 | < 10 |
| MW-8S | 6/26/13 | X | 120 | 18 J | 6000 | < 5 | 130000 | < 10 | < 7 | < 50 | 0.86 J | < 1 | < 1 | < 1 | < 1 | < 1 | < 10 |
| MW-16 | 6/25/13 | | 130 | 15 J | 8100 J | < 5 | 200000 J | < 10 | < 7 | < 50 | < 1 | 0.15 J | < 1 | < 1 | < 1 | < 1 | < 10 |
| MW-16 | 6/25/13 | X | 140 | 60 J | 8400 J | < 5 | 200000 J | < 10 | < 7 | < 50 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 10 |
| MW-17 | 6/26/13 | | 43 | 3.4 J | 5000 | < 5 | 10000 | < 10 | 12 | < 50 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | 0.58 J |
| MW-18 | 6/25/13 | | 240 | 79 | 25000 J | < 5 | 32000 J | < 10 | < 7 | < 50 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 10 |
| MW-20 | 6/24/13 | | 200 | 200 | 3100 J | < 5 | 47000 J | < 10 | < 7 | < 50 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 10 |
| MW-21 | 6/25/13 | | 720 | 860 | 7300 J | < 5 | 490000 J | 4.9 J | < 7 | < 50 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 10 |

**GROUNDWATER SAMPLE ANALYTICAL DATA - JUNE 2013**
**LENZ OIL SITE**
**LEMONT, ILLINOIS**

| | | | Acetone | Benzene | Carbon disulfide | Chlorobenzene | cis-1,2-Dichloroethene | Cyclohexane | Ethylbenzene | Isopropyl benzene | Methyl cyclohexane | Methyl tert butyl ether (MTBE) | Methylene chloride | Toluene | Xylenes (total) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Units [1] | | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L |
| | Class I Standards [2] | | 6300 | 5 | 700 | 100 | 70 | NA | 700 | 700 | NA | 70 | 50 | 1000 | 10000 |
| Location | Date | Duplicate [4] | | | | | | | | | | | | | |
| G-101D | 6/25/13 | | 1.4 J | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 2 |
| G-101M | 6/25/13 | | < 10 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 2 |
| G-106D | 6/26/13 | | < 10 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 2 |
| MW-2D | 6/26/13 | | < 10 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 2 |
| MW-2S | 6/26/13 | | < 10 | < 1 | < 1 | < 1 | 0.45 J | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 2 |
| MW-3D | 6/24/13 | | < 10 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 2 |
| MW-3S | 6/24/13 | | < 10 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 2 |
| MW-5DR | 6/26/13 | | < 10 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 2 |
| MW-6D | 6/24/13 | | < 10 | < 1 | 0.19 J | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 2 |
| MW-6S | 6/24/13 | | < 10 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 2 |
| MW-7D | 6/25/13 | | < 10 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 2 |
| MW-7S | 6/25/13 | | < 10 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | 0.34 J | < 1 | < 1 | < 2 |
| MW-8S | 6/26/13 | | < 10 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 2 |
| MW-8S | 6/26/13 | X | < 10 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 2 |
| MW-16 | 6/25/13 | | < 10 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 2 |
| MW-16 | 6/25/13 | X | < 10 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 2 |
| MW-17 | 6/26/13 | | 7.3 J | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 2 |
| MW-18 | 6/25/13 | | < 10 | < 1 | < 1 | < 1 | 0.25 J | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 2 |
| MW-20 | 6/24/13 | | < 10 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 2 |
| MW-21 | 6/25/13 | | < 10 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 2 |

Notes

[1] - Concentrations reported in micrograms per liter (ug/L)
[2] - Illinois Administrative Code (IAC) Class I Drinking Water Criteria
[3] - Not applicable (NA)
[4] - Duplicate sample collected
[5] - Less than symbol (<) indicates parameter was not detected above respective reporting limit
[6] - "J" indicates concentration is estimated
*Concentrations enclosed in bold outline exceed IAC Class I Criteria*

CHA 015169

# Attachment 1C

# LNAPL Analytical Data from June 2013

**LNAPL SAMPLE ANALYTICAL DATA - JUNE 2013**
**LENZ OIL SITE**
**LEMONT, ILLINOIS**

| Location | Units[1] / Date | Aluminum mg/kg | Antimony mg/kg | Arsenic mg/kg | Barium mg/kg | Beryllium mg/kg | Cadmium mg/kg | Calcium mg/kg | Chromium mg/kg | Cobalt mg/kg | Copper mg/kg | Iron mg/kg | Lead mg/kg | Magnesium mg/kg | Manganese mg/kg | Nickel mg/kg | Potassium mg/kg | Selenium mg/kg | Sodium mg/kg |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LMP-13 | 6/26/2013 | 14 J | <[2] 0.97 | 1.5 | 140 J[3] | < 0.49 | 0.058 J | < 490 | 5.1 | < 4.9 | 1.7 J | 84 | 72 | < 490 | 0.95 J | 1.5 J | < 490 | 0.61 | < 490 |
| LMP-13 | 6/26/2013 | 14 J | < 0.85 | 1.4 | 140 J | < 0.43 | 0.048 J | < 430 | 5.3 | < 4.3 | 1.8 J | 84 | 74 | < 430 | 0.96 J | 1.5 J | < 430 | 0.67 | < 430 |
| MW-12R | 6/26/2013 | 18 J | < 1.0 | 3.4 | 150 | < 0.50 | 0.043 J | 160 J | 5.3 | < 5.0 | < 2.5 | 57 | 100 | < 500 | 0.86 J | 1.3 J | < 500 | < 0.50 | < 500 |
| P-34R | 6/26/2013 | 48 | < 0.87 | 11 | 130 | 0.039 J | 0.15 J | 230 J | 7.7 | 0.32 J | 5.1 | 480 | 150 | < 430 | 1.7 J | 3.4 J | < 430 | < 0.43 | < 430 |

LNAPL SAMPLE ANALYTICAL DATA - JUNE 2013
LENZ OIL SITE
LEMONT, ILLINOIS

| Location | Units [1] / Date | Thallium | Vanadium | Zinc | Cyanide (total) | Aroclor-1248 (PCB-1248) | Aroclor-1260 (PCB-1260) | 2-Methylnaphthalene | Acenaphthene | Anthracene | Biphenyl (1,1-Biphenyl) | bis(2-Ethylhexyl)phthalate (DEHP) | Dibenzofuran | Di-n-butylphthalate (DBP) | Fluorene | Naphthalene |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mg/kg | mg/kg | mg/kg | mg/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg |
| LMP-13 | 6/26/2013 | < 0.97 | 2.6 J | < 2.0 | < 0.51 | 96000 | 39000 | 2300000 | 220000 J | 110000 J | 96000 J | < 400000 | < 400000 | < 400000 | 200000 J | 470000 |
| LMP-13 | 6/26/2013 | < 0.85 | 2.7 J | < 2.3 | < 0.51 | 84000 | 34000 | 2600000 | 250000 J | 120000 J | 120000 J | < 380000 | 120000 J | < 380000 | 220000 J | 500000 |
| MW-12R | 6/26/2013 | < 1.0 | 3.3 J | < 3.2 | < 0.48 | 140000 | 33000 | 3000000 | 210000 J | 66000 J | 110000 J | < 390000 | 97000 J | < 390000 | 210000 J | 600000 |
| P-34R | 6/26/2013 | < 0.87 | 3.0 J | 15 J | 0.21 J | 98000 | 26000 | 640000 | 75000 J | < 400000 | 40000 J | 370000 J | < 400000 | 30000 J | 72000 J | 200000 J |

LNAPL SAMPLE ANALYTICAL DATA - JUNE 2013
LENZ OIL SITE
LEMONT, ILLINOIS

| Location | Units [1] / Date | Phenanthrene | 1,1,1-Trichloroethane | 1,1-Dichloroethane | 1,2,4-Trichlorobenzene | 1,2-Dichlorobenzene | 1,3-Dichlorobenzene | 1,4-Dichlorobenzene | 2-Butanone (Methyl ethyl ketone) (MEK) | Acetone | Benzene | Carbon disulfide | Chlorobenzene | cis-1,2-Dichloroethene | Cyclohexane | Ethylbenzene |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg |
| LMP-13 | 6/26/2013 | 540000 | < 11000 | < 11000 | < 11000 | 48000 | < 11000 | < 11000 | < 45000 | < 45000 | 4400 J | < 11000 | < 11000 | < 11000 | < 23000 | 130000 |
| LMP-13 | 6/26/2013 | 640000 | < 11000 | < 11000 | 16000 | 47000 | 2800 J | 8000 J | < 46000 | < 46000 | < 11000 | < 11000 | < 11000 | < 11000 | < 23000 | 130000 |
| MW-12R | 6/26/2013 | 540000 | < 29000 | < 29000 | < 29000 | 67000 | 4000 J | 12000 J | < 110000 | < 110000 | 56000 | < 29000 | < 29000 | < 29000 | < 57000 | 420000 |
| P-34R | 6/26/2013 | 160000 J | < 11000 | < 11000 | < 11000 | 91000 | 5100 J | 15000 | < 46000 | < 46000 | 17000 | < 11000 | 12000 | < 11000 | 58000 | 230000 |

**LNAPL SAMPLE ANALYTICAL DATA - JUNE 2013**
**LENZ OIL SITE**
**LEMONT, ILLINOIS**

| Location | Units[1] / Date | Isopropyl benzene | Methyl cyclohexane | Methyl tert butyl ether (MTBE) | Methylene chloride | Toluene | Xylenes (total) |
|---|---|---|---|---|---|---|---|
| | | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg |
| LMP-13 | 6/26/2013 | 46000 | 210000 | < 45000 | 3400 J | 25000 | 580000 |
| LMP-13 | 6/26/2013 | 47000 | 230000 | < 46000 | 5500 J | 24000 | 590000 |
| MW-12R | 6/26/2013 | 76000 | 380000 | < 110000 | 14000 J | 400000 | 2100000 |
| P-34R | 6/26/2013 | 31000 | 120000 | < 46000 | 3800 J | 12000 | 640000 |

Notes:

[1] Concentrations reported in milligrams per kilogram (mg/kg) or micrograms per kilogram (ug/kg)

[2] Less than symbol (<) indicates parameter was not detected above respective reporting limit

[3] "J" indicates concentration is estimated

**Attachment 2**

# Attachment 2A

# VER System Influent Analytical Data (2010-2014)

VER SYSTEM INFLUENT WATER SAMPLE ANALYTICAL DATA
LENZ OIL SITE
LEMONT, ILLINOIS

| Location | Units[1] Date | N-Hexane extractable material | Oil and grease (HEM), polar | 1,1,1-Trichloroethane | 1,1,2,2-Tetrachloroethane | 1,1,2-Trichloroethane | 1,1-Dichloroethane | 1,1-Dichloroethene | 1,2,4-Trichlorobenzene | 1,2-Dibromo-3-chloropropane (DBCP) | 1,2-Dibromoethane (Ethylene dibromide) | 1,2-Dichlorobenzene | 1,2-Dichloroethane | 1,2-Dichloropropane | 1,3-Dichlorobenzene | 1,3-Dichloropropene | 1,4-Dichlorobenzene | 2-Butanone (Methyl ethyl ketone) (MEK) | 2-Hexanone | 4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK) | Acetone | Benzene | Bromodichloromethane | Bromoform | Bromomethane (Methyl bromide) | Carbon disulfide | Carbon tetrachloride |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mg/L | mg/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L |
| INF | 2/22/10 | <[2] 5.0 | | 0.82 J[3] | < 2.5 | < 2.5 | 12 | < 2.5 | < 2.5 | < 5.0 | < 2.5 | 8.3 | < 2.5 | 0.80 J | < 2.5 | | < 2.5 | < 25 | < 25 | < 25 | 3.0 J | 50 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 |
| INF | 3/31/10 | < 5.0 | | | | | | | | | | | | | | | | | | | | 40 | | | | | |
| INF | 4/15/10 | 1.1 J | | | | | | | | | | | | | | | | | | | | 54 | | | | | |
| INF | 5/20/10 | 1.8 J | | | | | | | | | | | | | | | | | | | | 15 | | | | | |
| INF | 6/15/10 | < 5.0 | | | | | | | | | | | | | | | | | | | | 31 | | | | | |
| INF | 7/15/10 | < 5.0 | | | | | | | | | | | | | | | | | | | | 36 | | | | | |
| INF | 8/19/10 | 0.95 J | | | | | | | | | | | | | | | | | | | | 37 | | | | | |
| INF | 9/16/10 | < 5.0 | | | | | | | | | | | | | | | | | | | | 24 | | | | | |
| INF | 10/21/10 | 1.1 J | | < 1.0 | < 1.0 | < 1.0 | 2.4 | < 1.0 | < 1.0 | < 2.0 | < 1.0 | 3.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 10 | < 10 | < 10 | < 10 | 10 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| INF | 11/18/10 | 31.4 | | 0.27 J | < 1.0 | < 1.0 | 3.6 | < 1.0 | 1 J | < 2.0 | < 1.0 | 7.6 | < 1.0 | 0.20 J | 0.23 J | | 0.93 J | < 10 | < 10 | < 10 | < 10 | 15 | < 1.0 | < 1.0 | < 1.0 | 3.7 | < 1.0 |
| INF | 12/22/10 | 0.77 J | | < 1.0 | < 1.0 | < 1.0 | 3.4 | < 1.0 | < 1.0 | < 2.0 | < 1.0 | 3.7 | < 1.0 | < 1.0 | < 1.0 | | 0.48 J | < 10 | < 10 | < 10 | < 10 | 14 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| INF | 1/13/11 | 1.6 J | | 0.23 J | < 1.0 | < 1.0 | 3.3 | < 1.0 | 0.20 J | < 2.0 | < 1.0 | 3.4 | < 1.0 | < 1.0 | < 1.0 | | 0.47 J | < 10 | < 10 | < 10 | < 10 | 12 | < 1.0 | < 1.0 | < 1.0 | 0.63 J | < 1.0 |
| INF | 2/7/11 | 2.2 J | | | | | | | | | | | | | | | | | | | | 13 | | | | | |
| INF | 3/8/11 | 1.4 J | | | | | | | | | | | | | | | | | | | | 14 | | | | | |
| INF | 4/4/11 | 1.4 J | | < 1.0 | < 1.0 | < 1.0 | 2.8 | < 1.0 | 0.21 J | < 2.0 | < 1.0 | 2.8 | < 1.0 | 0.20 J | < 1.0 | | 0.40 J | < 10 | < 10 | < 10 | < 10 | 13 | < 1.0 | < 1.0 | < 1.0 | 0.64 J | < 1.0 |
| INF | 5/3/11 | 1.7 J | | | | | | | | | | | | | | | | | | | | 20 | | | | | |
| INF | 6/3/11 | | 2.8 J | | | | | | | | | | | | | | | | | | | 12 | | | | | |
| INF | 7/6/11 | | 1.5 J | 0.24 J | < 1.0 | < 1.0 | 3.3 | < 1.0 | < 1.0 | < 2.0 | < 1.0 | 2.7 | < 1.0 | < 1.0 | < 1.0 | < 2.0 | < 1.0 | < 10 | < 10 | < 10 | < 10 | 13 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |

VER SYSTEM INFLUENT WATER SAMPLE ANALYTICAL DATA
LENZ OIL SITE
LEMONT, ILLINOIS

| Location | Units[1] Date | N-Hexane extractable material mg/L | Oil and grease (HEM), polar mg/L | 1,1,1-Trichloroethane ug/L | 1,1,2,2-Tetrachloroethane ug/L | 1,1,2-Trichloroethane ug/L | 1,1-Dichloroethane ug/L | 1,1-Dichloroethene ug/L | 1,2,4-Trichlorobenzene ug/L | 1,2-Dibromo-3-chloropropane (DBCP) ug/L | 1,2-Dibromoethane (Ethylene dibromide) ug/L | 1,2-Dichlorobenzene ug/L | 1,2-Dichloroethane ug/L | 1,2-Dichloropropane ug/L | 1,3-Dichlorobenzene ug/L | 1,3-Dichloropropene ug/L | 1,4-Dichlorobenzene ug/L | 2-Butanone (Methyl ethyl ketone) (MEK) ug/L | 2-Hexanone ug/L | 4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK) ug/L | Acetone ug/L | Benzene ug/L | Bromodichloromethane ug/L | Bromoform ug/L | Bromomethane (Methyl bromide) ug/L | Carbon disulfide ug/L | Carbon tetrachloride ug/L |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| INF | 8/4/11 | | < 1.8 | | | | | | | | | | | | | | | | | | | 13 | | | | | |
| INF | 9/2/11 | | 1.6 J | | | | | | | | | | | | | | | | | | | 9.3 | | | | | |
| INF | 10/4/11 | | 1.7 J | < 1.0 | < 1.0 | < 1.0 | 3.5 | < 1.0 | < 1.0 | < 2.0 | < 1.0 | 2.6 | < 1.0 | < 1.0 | < 1.0 | < 2.0 | 0.37 J | < 10 | < 10 | < 10 | < 10 | 11 | < 1.0 | < 1.0 | < 1.0 | 0.19 J | < 1.0 |
| INF | 11/2/11 | | 2.2 J | | | | | | | | | | | | | | | | | | | 11 | | | | | |
| INF | 12/6/11 | | < 4.7 | | | | | | | | | | | | | | | | | | | 15 | | | | | |
| INF | 1/3/12 | | < 4.8 | < 1.0 | < 1.0 | < 1.0 | 2.3 | < 1.0 | < 1.0 | < 2.0 | < 1.0 | 2.2 | < 1.0 | < 1.0 | < 1.0 | < 2.0 | 0.30 | < 10 | < 10 | < 10 | < 10 | 6.3 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| INF | 2/7/12 | | 2.2 | | | | | | | | | | | | | | | | | | | 11 | | | | | |
| INF | 3/6/12 | | < 4.8 | | | | | | | | | | | | | | | | | | | 10 | | | | | |
| INF | 4/3/12 | | 6.0 | < 1.0 | < 1.0 | < 1.0 | 2.7 | < 1.0 | < 1.0 | < 2.0 | < 1.0 | 2.2 | < 1.0 | < 1.0 | < 1.0 | < 2.0 | 0.33 J | < 10 | < 10 | < 10 | 4.8 J | 8.6 | < 1.0 | < 1.0 | < 1.0 | 0.40 J | < 1.0 |
| INF | 5/2/12 | | 1.2 J | | | | | | | | | | | | | | | | | | | 9.4 | | | | | |
| INF | 6/7/12 | | 0.86 J | | | | | | | | | | | | | | | | | | | 6.3 | | | | | |
| INF | 7/3/12 | | 33 | < 2.0 | < 2.0 | < 2.0 | 2.1 | < 2.0 | < 2.0 | < 4.0 | < 2.0 | 6.6 | < 2.0 | < 2.0 | < 2.0 | < 4.0 | 0.91 J | < 20 | < 20 | < 20 | < 20 | 6.7 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| INF | 8/1/12 | | < 4.8 | | | | | | | | | | | | | | | | | | | 6.1 | | | | | |
| INF | 9/6/12 | | < 4.8 | | | | | | | | | | | | | | | | | | | 5.8 | | | | | |
| INF | 10/4/12 | | 160 | < 9.1 | < 9.1 | < 9.1 | < 9.1 | < 9.1 | < 9.1 | < 18 | < 9.1 | 15 | < 9.1 | < 9.1 | < 9.1 | < 18 | < 9.1 | < 91 | < 91 | < 91 | < 91 | 6.2 J | < 9.1 | < 9.1 | < 9.1 | < 9.1 | < 9.1 |
| INF | 11/1/12 | | < 4.8 | | | | | | | | | | | | | | | | | | | 4.5 | | | | | |
| INF | 1/24/13 | | 11 | < 1.0 | < 1.0 | < 1.0 | 1.5 | < 1.0 | < 1.0 | < 2.0 | < 1.0 | 2.0 | < 1.0 | < 1.0 | < 1.0 | < 2.0 | 0.33 J | < 10 | < 10 | < 10 | < 10 | 3.8 | < 1.0 | < 1.0 | < 1.0 | 0.53 J | < 1.0 |
| INF | 2/7/13 | | 1.7 J | | | | | | | | | | | | | | | | | | | 5.8 | | | | | |
| INF | 3/7/13 | | < 4.7 | | | | | | | | | | | | | | | | | | | 5.0 | | | | | |
| INF | 4/5/13 | | < 4.7 | < 1.0 | < 1.0 | < 1.0 | 2.1 | < 1.0 | < 1.0 | < 2.0 | < 1.0 | 2.1 | < 1.0 | < 1.0 | < 1.0 | < 2.0 | 0.33 J | < 10 | < 10 | < 10 | < 10 | 6.5 | < 1.0 | < 1.0 | < 1.0 | 0.22 J | < 1.0 |

VER SYSTEM INFLUENT WATER SAMPLE ANALYTICAL DATA
LENZ OIL SITE
LEMONT, ILLINOIS



| Location | Units[1] Date | N-Hexane extractable material | Oil and grease (HEM), polar | 1,1,1-Trichloroethane | 1,1,2,2-Tetrachloroethane | 1,1,2-Trichloroethane | 1,1-Dichloroethane | 1,1-Dichloroethene | 1,2,4-Trichlorobenzene | 1,2-Dibromo-3-chloropropane (DBCP) | 1,2-Dibromoethane (Ethylene dibromide) | 1,2-Dichlorobenzene | 1,2-Dichloroethane | 1,2-Dichloropropane | 1,3-Dichlorobenzene | 1,3-Dichloropropene | 1,4-Dichlorobenzene | 2-Butanone (Methyl ethyl ketone) (MEK) | 2-Hexanone | 4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK) | Acetone | Benzene | Bromodichloromethane | Bromoform | Bromomethane (Methyl bromide) | Carbon disulfide | Carbon tetrachloride |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mg/L | mg/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L | ug/L |
| INF | 5/1/13 | | 0.85 J | | | | | | | | | | | | | | | | | | | 9.3 | | | | | |
| INF | 6/12/13 | | 1.2 J | | | | | | | | | | | | | | | | | | | 11 | | | | | |
| INF | 7/2/13 | | 1.3 J | < 1.0 | < 1.0 | < 1.0 | 2.6 | < 1.0 | < 1.0 | < 2.0 | < 1.0 | 2.5 | < 1.0 | < 1.0 | < 1.0 | < 2.0 | < 1.0 | < 10 | < 10 | < 10 | 1.4 J | 6.1 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| INF | 8/1/13 | | < 4.8 | | | | | | | | | | | | | | | | | | | 3.5 | | | | | |
| INF | 9/3/13 | | < 4.8 | | | | | | | | | | | | | | | | | | | 2.9 | | | | | |
| INF | 10/3/13 | | 8.0 | < 1.0 | < 1.0 | < 1.0 | 1.2 | < 1.0 | 0.26 J | < 2.0 | < 1.0 | 1.5 | < 1.0 | < 1.0 | < 1.0 | < 2.0 | < 1.0 | < 10 | < 10 | < 10 | < 10 | 0.53 J | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| INF | 10/31/13 | | 2.8 J | | | | | | | | | | | | | | | | | | | 2.2 | | | | | |
| INF | 12/2/13 | | 0.76 J | | | | | | | | | | | | | | | | | | | 2.8 | | | | | |
| INF | 1/3/14 | | 1.1 J | < 1.0 | < 1.0 | < 1.0 | 1.1 | < 1.0 | < 1.0 | < 2.0 | < 1.0 | 1.9 | < 1.0 | < 1.0 | < 1.0 | < 2.0 | < 1.0 | < 10 | < 10 | < 10 | < 10 | 2.0 | < 1.0 | < 1.0 | < 1.0 | 0.91 J | < 1.0 |
| INF | 2/4/14 | | 3.2 J | | | | | | | | | | | | | | | | | | | 1.9 | | | | | |

VER SYSTEM INFLUENT WATER SAMPLE ANALYTICAL DATA
LENZ OIL SITE
*LEMONT, ILLINOIS*

| Location | Units [1] / Date | Chlorobenzene ug/L | Chloroethane ug/L | Chloroform (Trichloromethane) ug/L | Chloromethane (Methyl chloride) ug/L | cis-1,2-Dichloroethene ug/L | cis-1,3-Dichloropropene ug/L | Cyclohexane ug/L | Dibromochloromethane ug/L | Dichlorodifluoromethane (CFC-12) ug/L | Ethylbenzene ug/L | Isopropyl benzene ug/L | Methyl acetate ug/L | Methyl cyclohexane ug/L | Methyl tert butyl ether (MTBE) ug/L | Methylene chloride ug/L | Styrene ug/L | Tetrachloroethene ug/L | Toluene ug/L | trans-1,2-Dichloroethene ug/L | trans-1,3-Dichloropropene ug/L | Trichloroethene ug/L | Trichlorofluoromethane (CFC-11) ug/L | Trifluorotrichloroethane (Freon 113) ug/L | Vinyl chloride ug/L | Xylenes (total) ug/L |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| INF | 2/22/10 | 2.4 J | 8.4 | < 2.5 | < 2.5 | 16 | < 2.5 | 2.3 J | < 2.5 | < 2.5 | 47 | 1.9 J | < 25 | < 2.5 | < 12 | < 2.5 | < 2.5 | < 2.5 | 52 | < 2.5 | < 2.5 J | < 2.5 | < 2.5 | < 2.5 | < 2.5 | 89 |
| INF | 3/31/10 | | | | | | | | | | 57 | | | | | | | | 37 | | | | | | | 91 |
| INF | 4/15/10 | | | | | | | | | | 110 | | | | | | | | 49 | | | | | | | 160 |
| INF | 5/20/10 | | | | | | | | | | 8.1 | | | | | | | | 1.3 | | | | | | | 4.2 |
| INF | 6/15/10 | | | | | | | | | | 37 | | | | | | | | 15 | | | | | | | 40 |
| INF | 7/15/10 | | | | | | | | | | 47 | | | | | | | | 23 | | | | | | | 54 |
| INF | 8/19/10 | | | | | | | | | | 45 | | | | | | | | 22 | | | | | | | 56 |
| INF | 9/16/10 | | | | | | | | | | 36 | | | | | | | | 6.7 | | | | | | | 29 |
| INF | 10/21/10 | 1.2 | 1.2 | < 1.0 | < 1.0 | 2.8 | < 1.0 | 0.70 J | < 1.0 | < 1.0 | 12 | 0.74 J | < 10 | 0.50 J | < 5.0 | < 1.0 | < 1.0 | < 1.0 | 1.4 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | 0.49 J | 4.3 |
| INF | 11/18/10 | 1.4 | 3.7 | < 1.0 | < 1.0 | 6.3 | < 1.0 | 3.5 | < 1.0 | < 1.0 | 32 | 2.4 | < 10 | 1.8 | < 5.0 | < 1.0 | < 1.0 | < 1.0 | 11 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | 1.3 | 84 |
| INF | 12/22/10 | 1.4 | 2.5 | < 1.0 | < 1.0 | 4.5 | < 1.0 | 6.7 | < 1.0 | < 1.0 | 19 | 1.4 | < 10 | 2.0 | < 5.0 | < 1.0 | < 1.0 | < 1.0 | 2.5 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | 1.4 | 9.2 |
| INF | 1/13/11 | 1.2 | 3.0 | < 1.0 | < 1.0 | 4.6 | < 1.0 | 1.9 | < 1.0 | < 1.0 | 15 | 0.97 J | < 10 | 0.66 J | < 5.0 | < 1.0 | < 1.0 | < 1.0 | 3.8 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | 1.3 | 9.5 |
| INF | 2/7/11 | | | | | | | | | | 16 | | | | | | | | 2.9 | | | | | | | 8.5 |
| INF | 3/8/11 | | | | | | | | | | 11 | | | | | | | | 3.5 | | | | | | | 8.2 |
| INF | 4/4/11 | 0.92 J | 1.5 | < 1.0 | < 1.0 | 6.7 | < 1.0 | 2.3 | < 1.0 | < 1.0 | 18 | 0.94 J | < 10 | 0.80 J | < 5.0 | < 1.0 | < 1.0 | < 1.0 | 4.8 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | 13 |
| INF | 5/3/11 | | | | | | | | | | 22 | | | | | | | | 4.2 | | | | | | | 11 |
| INF | 6/3/11 | | | | | | | | | | 14 | | | | | | | | 1.3 | | | | | | | 5.8 |
| INF | 7/6/11 | 1.1 | 2.6 | < 1.0 | < 1.0 | 5.2 | < 1.0 | 4.0 | < 1.0 | < 1.0 | 16 | 1.1 | < 10 | 1.6 | < 5.0 | < 1.0 | < 1.0 | < 1.0 | 2.5 | < 1.0 | < 1.0 | 0.17 J | < 1.0 | < 1.0 | < 1.0 | 9.1 |

VER SYSTEM INFLUENT WATER SAMPLE ANALYTICAL DATA
LENZ OIL SITE
LEMONT, ILLINOIS

| Location | Units[1] Date | Chlorobenzene ug/L | Chloroethane ug/L | Chloroform (Trichloromethane) ug/L | Chloromethane (Methyl chloride) ug/L | cis-1,2-Dichloroethene ug/L | cis-1,3-Dichloropropene ug/L | Cyclohexane ug/L | Dibromochloromethane ug/L | Dichlorodifluoromethane (CFC-12) ug/L | Ethylbenzene ug/L | Isopropyl benzene ug/L | Methyl acetate ug/L | Methyl cyclohexane ug/L | Methyl tert butyl ether (MTBE) ug/L | Methylene chloride ug/L | Styrene ug/L | Tetrachloroethene ug/L | Toluene ug/L | trans-1,2-Dichloroethene ug/L | trans-1,3-Dichloropropene ug/L | Trichloroethene ug/L | Trichlorofluoromethane (CFC-11) ug/L | Trifluorotrichloroethane (Freon 113) ug/L | Vinyl chloride ug/L | Xylenes (total) ug/L |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| INF | 8/4/11 | | | | | | | | | | 11 | | | | | | | | 0.58 J | | | | | | | 2.3 |
| INF | 9/2/11 | | | | | | | | | | 8.4 | | | | | | | | 0.39 J | | | | | | | 1.8 J |
| INF | 10/4/11 | 1.1 | 3.5 | < 1.0 | < 1.0 | 5.1 | < 1.0 | 4.0 | < 1.0 | < 1.0 | 8.9 | 0.69 J | < 10 | 1.4 | < 5.0 | < 1.0 | < 1.0 | < 1.0 | 1.8 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | 1.6 | 4.5 |
| INF | 11/2/11 | | | | | | | | | | 8.9 | | | | | | | | 1.1 | | | | | | | 3.7 |
| INF | 12/6/11 | | | | | | | | | | 12 | | | | | | | | 5.5 | | | | | | | 11 |
| INF | 1/3/12 | 0.80 | 1.1 | < 1.0 | < 1.0 | 2.9 | < 1.0 | 1.2 | < 1.0 | < 1.0 | 4.3 | 0.44 | < 10 | 0.34 | < 5.0 | < 1.0 | < 1.0 | < 1.0 | 0.79 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | 0.50 | 2.2 |
| INF | 2/7/12 | | | | | | | | | | 11 | | | | | | | | 2.0 | | | | | | | 7.3 |
| INF | 3/6/12 | | | | | | | | | | 12 | | | | | | | | 2.3 | | | | | | | 6.9 |
| INF | 4/3/12 | 0.70 J | 1.5 | < 1.0 | < 1.0 | 4.9 | < 1.0 | 2.4 | < 1.0 | < 1.0 | 7.7 | 0.59 J | < 10 | 1.1 | < 5.0 | < 1.0 | < 1.0 | < 1.0 | 1.2 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | 7.4 |
| INF | 5/2/12 | | | | | | | | | | 8.4 | | | | | | | | 1.7 | | | | | | | 4.7 |
| INF | 6/7/12 | | | | | | | | | | 5.1 | | | | | | | | 0.60 J | | | | | | | 1.3 J |
| INF | 7/3/12 | 1.0 J | 0.64 J | < 2.0 | < 2.0 | 4.4 | < 2.0 | 5.7 | < 2.0 | < 2.0 | 48 | 4.2 | < 20 | 6.1 | < 10 | < 2.0 | < 2.0 | < 2.0 | 61 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | 210 |
| INF | 8/1/12 | | | | | | | | | | 4.3 | | | | | | | | 2.1 | | | | | | | 5.0 |
| INF | 9/6/12 | | | | | | | | | | 4.3 | | | | | | | | 1.3 | | | | | | | 5.1 |
| INF | 10/4/12 | 1.4 J | < 9.1 | < 9.1 | < 9.1 | 3.5 J | < 9.1 | 3.2 J | < 9.1 | < 9.1 | 78 | 5.7 J | < 91 | 2.2 J | < 45 | < 9.1 | < 9.1 | < 9.1 | 79 | < 9.1 | < 9.1 | < 9.1 | < 9.1 | < 9.1 | < 9.1 | 430 |
| INF | 11/1/12 | | | | | | | | | | 2.9 | | | | | | | | 0.62 J | | | | | | | 3.4 |
| INF | 1/24/13 | 0.56 J | 1.0 | < 1.0 | < 1.0 | 2.4 | < 1.0 | 1.9 | < 1.0 | < 1.0 | 3.0 | 0.40 J | < 10 | 0.60 J | < 5.0 | < 1.0 | < 1.0 | < 1.0 | 1.2 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | 7.1 |
| INF | 2/7/13 | | | | | | | | | | 4.0 | | | | | | | | 3.1 | | | | | | | 6.7 |
| INF | 3/7/13 | | | | | | | | | | 2.9 | | | | | | | | 1.0 | | | | | | | 4.0 |
| INF | 4/5/13 | 0.67 J | 1.6 | < 1.0 | < 1.0 | 4.8 | < 1.0 | 2.6 | < 1.0 | < 1.0 | 5.7 | 0.76 J | < 10 | 0.98 J | < 1.0 | < 1.0 | < 1.0 | < 1.0 | 3.2 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | 0.64 J | 7.7 |

VER SYSTEM INFLUENT WATER SAMPLE ANALYTICAL DATA
LENZ OIL SITE
LEMONT, ILLINOIS

| Location | Units[1] / Date | Chlorobenzene ug/L | Chloroethane ug/L | Chloroform (Trichloromethane) ug/L | Chloromethane (Methyl chloride) ug/L | cis-1,2-Dichloroethene ug/L | cis-1,3-Dichloropropene ug/L | Cyclohexane ug/L | Dibromochloromethane ug/L | Dichlorodifluoromethane (CFC-12) ug/L | Ethylbenzene ug/L | Isopropyl benzene ug/L | Methyl acetate ug/L | Methyl cyclohexane ug/L | Methyl tert butyl ether (MTBE) ug/L | Methylene chloride ug/L | Styrene ug/L | Tetrachloroethene ug/L | Toluene ug/L | trans-1,2-Dichloroethene ug/L | trans-1,3-Dichloropropene ug/L | Trichloroethene ug/L | Trichlorofluoromethane (CFC-11) ug/L | Trifluorotrichloroethane (Freon 113) ug/L | Vinyl chloride ug/L | Xylenes (total) ug/L |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| INF | 5/1/13 | | | | | | | | | | 2.7 | | | | | | | | 0.49 J | | | | | | | 1.9 J |
| INF | 6/12/13 | | | | | | | | | | 3.9 | | | | | | | | 0.30 J | | | | | | | 1.1 J |
| INF | 7/2/13 | 0.61 J | < 1.0 | < 1.0 | < 1.0 | 2.9 | < 1.0 | 1.4 | < 1.0 | < 1.0 | 2.5 | 0.21 J | < 10 | 0.47 J | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | 0.92 J |
| INF | 8/1/13 | | | | | | | | | | 1.9 | | | | | | | | 0.28 J | | | | | | | 1.4 J |
| INF | 9/3/13 | | | | | | | | | | 2.3 | | | | | | | | < 1.7 | | | | | | | 7.2 |
| INF | 10/3/13 | < 1.0 | 0.48 J | < 1.0 | < 1.0 | 1.5 | < 1.0 | 0.31 J | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 10 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | 4.2 |
| INF | 10/31/13 | | | | | | | | | | 2.3 | | | | | | | | 1.5 | | | | | | | 9.9 |
| INF | 12/2/13 | | | | | | | | | | 0.87 J | | | | | | | | 0.30 J | | | | | | | 0.58 J |
| INF | 1/3/14 | 0.44 J | 0.62 J | < 1.0 | < 1.0 | 1.3 | < 1.0 | 1.3 | < 1.0 | < 1.0 | 0.93 J | 0.70 J | < 10 | 0.76 J | < 1.0 | < 1.0 | < 1.0 | < 1.0 | 0.23 J | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | 3.3 |
| INF | 2/4/14 | | | | | | | | | | 0.82 J | | | | | | | | < 1.0 | | | | | | | 1.2 J |

Note:

[1] Concentrations reported in milligrams per liter (mg/L) or micrograms per liter (ug/L)

[2] Less than symbol (<) indicates parameter was not detected above respective reporting limit

[3] "J" indicates concentration is estimated

# Attachment 2B

# VER System Effluent Analytical Data (2010-2014)

# VER SYSTEM EFFLUENT WATER SAMPLE ANALYTICAL DATA
## LENZ OIL SITE
## LEMONT, ILLINOIS

| Location | Units[1] Date | N-Hexane extractable material mg/L | Oil and grease (HEM), polar mg/L | Benzene ug/L | Ethylbenzene ug/L | Toluene ug/L | Xylenes (total) ug/L |
|---|---|---|---|---|---|---|---|
| EFF | 2/22/10 | <[2]5.0 | | 1.3 | 1.0 | 1.5 | 2.9 |
| EFF | 3/31/10 | < 5.0 | | 0.40 J[3] | 0.47 J | 0.49 J | 1.4 J |
| EFF | 4/15/10 | 1.2 J | | < 1.0 | 0.17 J | 0.16 J | 0.42 J |
| EFF | 5/20/10 | 1.6 J | | < 1.0 | < 1.0 | < 1.0 | 0.37 J |
| EFF | 6/15/10 | 1.1 J | | 0.29 J | 0.32 J | 0.19 J | < 2.0 |
| EFF | 7/15/10 | < 5.0 | | < 1.0 | < 1.0 | < 1.0 | < 2.0 |
| EFF | 8/19/10 | 1.6 J | | < 1.0 | < 1.0 | < 1.0 | 0.33 J |
| EFF | 9/16/10 | < 5.0 | | < 1.0 | 0.20 J | < 1.0 | < 2.0 |
| EFF | 10/21/10 | 1.1 J | | < 1.0 | < 1.0 | < 1.0 | < 2.0 |
| EFF | 11/18/10 | 3.4 J | | < 1.0 | < 1.0 | < 1.0 | < 2.0 |
| EFF | 12/22/10 | < 5.0 | | < 1.0 | < 1.0 | < 1.0 | < 2.0 |
| EFF | 1/13/11 | 1.5 J | | < 1.0 | < 1.0 | < 1.0 | < 2.0 |
| EFF | 2/7/11 | 1.1 J | | < 1.0 | < 1.0 | < 1.0 | < 2.0 |
| EFF | 3/8/11 | < 5.0 | | < 1.0 | < 1.0 | < 1.0 | < 2.0 |
| EFF | 4/4/11 | 4.1 J | | < 1.0 | 0.21 J | < 1.0 | < 2.0 |
| EFF | 5/3/11 | 1.9 J | | < 1.0 | 0.24 J | < 1.0 | < 2.0 |
| EFF | 6/3/11 | | 1.2 J | < 1.0 | < 1.0 | < 1.0 | < 2.0 |
| EFF | 7/6/11 | | 1.9 J | < 1.0 | < 1.0 | < 1.0 | < 2.0 |
| EFF | 8/4/11 | | < 1.2 | < 1.0 | < 1.0 | < 1.0 | < 2.0 |
| EFF | 9/2/11 | | < 4.8 | < 1.0 | < 1.0 | < 1.0 | < 2.0 |
| EFF | 10/4/11 | | 1.5 J | < 1.0 | < 1.0 | < 1.0 | < 2.0 |
| EFF | 11/2/11 | | 2.2 J | < 1.0 | < 1.0 | < 1.0 | < 2.0 |

VER SYSTEM EFFLUENT WATER SAMPLE ANALYTICAL DATA
LENZ OIL SITE
LEMONT, ILLINOIS

| Location | Units[1] Date | N-Hexane extractable material mg/L | Oil and grease (HEM), polar mg/L | Benzene ug/L | Ethylbenzene ug/L | Toluene ug/L | Xylenes (total) ug/L |
|---|---|---|---|---|---|---|---|
| EFF | 12/6/11 | | < 4.8 | 0.23 J | 0.22 J | < 1.0 | < 2.0 |
| EFF | 1/3/12 | | 1.7 | < 1.0 | < 1.0 | < 1.0 | < 2.0 |
| EFF | 2/7/12 | | 3.1 | 0.14 | < 1.0 | < 1.0 | < 2.0 |
| EFF | 3/6/12 | | < 4.8 | < 1.0 | < 1.0 | < 1.0 | < 2.0 |
| EFF | 4/3/12 | | 2.5 J | < 1.0 | 0.23 J | < 1.0 | 0.41 J |
| EFF | 5/2/12 | | 3.3 J | < 1.0 | < 1.0 | < 1.0 | < 2.0 |
| EFF | 6/7/12 | | 1.5 J | < 1.0 | < 1.0 | < 1.0 | < 2.0 |
| EFF | 7/3/12 | | 2.5 J | < 1.0 | < 1.0 | 0.16 J | 0.83 J |
| EFF | 8/1/12 | | 2.3 J | 0.19 J | < 1.0 | < 1.0 | < 2.0 |
| EFF | 9/6/12 | | 1.2 J | < 1.0 | < 1.0 | < 1.0 | < 2.0 |
| EFF | 10/4/12 | | 14 | < 1.0 | 1.3 | 0.88 J | 8.4 |
| EFF | 11/1/12 | | < 4.8 | < 1.0 | < 1.0 | < 1.0 | < 2.0 |
| EFF | 1/24/13 | | 2.9 J | 0.38 J | 0.26 J | 0.14 J | 0.41 J |
| EFF | 2/7/13 | | 1.0 J | 1.5 | 0.86 J | 0.75 J | 1.9 J |
| EFF | 3/7/13 | | < 4.8 | 0.46 J | 0.22 J | < 1.0 | 0.30 J |
| EFF | 4/5/13 | | < 4.8 | 0.40 J | 0.56 J | 0.23 J | 1.5 J |
| EFF | 5/1/13 | | 5.5 | < 1.0 | < 1.0 | < 1.0 | < 2.0 |
| EFF | 6/12/13 | | 3.6 J | 0.58 J | 0.23 J | < 1.0 | < 2.0 |
| EFF | 7/2/13 | | 3.0 J | < 1.0 | < 1.0 | < 1.0 | < 2.0 |
| EFF | 8/1/13 | | < 4.8 | < 1.0 | < 1.0 | < 1.0 | < 2.0 |
| EFF | 9/3/13 | | < 4.8 | < 1.0 | < 1.0 | < 1.0 | < 2.0 |
| EFF | 10/3/13 | | 3.3 J | < 1.0 | < 1.0 | < 1.0 | 0.38 J |

VER SYSTEM EFFLUENT WATER SAMPLE ANALYTICAL DATA
LENZ OIL SITE
LEMONT, ILLINOIS

| Location | Units[1] Date | N-Hexane extractable material mg/L | Oil and grease (HEM), polar mg/L | Benzene ug/L | Ethylbenzene ug/L | Toluene ug/L | Xylenes (total) ug/L |
|---|---|---|---|---|---|---|---|
| EFF | 10/31/13 | | 2.1 J | < 1.0 | < 1.0 | < 1.0 | < 2.0 |
| EFF | 12/2/13 | | < 4.8 | < 1.0 | < 1.0 | < 1.0 | < 2.0 |
| EFF | 1/3/14 | | < 4.8 | < 1.0 | < 1.0 | < 1.0 | < 2.0 |
| EFF | 2/4/14 | | 2.9 J | 0.39 J | < 1.0 | < 1.0 | 0.17 J |

Note:

[1] Concentrations reported in milligrams per liter (mg/L) or micrograms per liter (ug/L)

[2] Less than symbol (<) indicates parameter was not detected above respective reporting limit

[3] "J" indicates concentration is estimated

# Attachment 3

# VER System LNAPL Recovery and Extraction Summary (2010-2013)

**VER SYSTEM PHASE-SPECIFIC LNAPL RECOVERY AND WATER EXTRACTION SUMMARY**
**LENZ OIL SITE**
**LEMONT, ILLINOIS**

| Date | Run Time[3] (days) | Cumulative Run Time (days) | Dissolved Phase | | | | | | | Vapor Phase | | | | | | | Water Extraction | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Monthly Total[4] (pounds) | Cumulative Total (pounds) | Cumulative Total (gallons) | Daily Recovery Rate[1] (pounds/day) | Daily Recovery Rate[1] (gallons/day) | Overall Average Recovery Rate[2] (pounds/day) | Overall Average Recovery Rate[2] (gallons/day) | Monthly Total (pounds) | Cumulative Total (pounds) | Cumulative Total (gallons) | Daily Recovery Rate[1] (pounds/day) | Daily Recovery Rate[1] (gallons/day) | Overall Average Recovery Rate[2] (pounds/day) | Overall Average Recovery Rate[2] (gallons/day) | Monthly Total (gallons) | Cumulative Monthly Total (gallons) | Daily Recovery Rate[1] (gallons per day) | Overall Average Recovery Rate[2] (gallons per day) |
| Feb-2010 | 8.8 | 8.8 | 5.8 | 5.8 | 0.8 | 0.7 | 0.1 | 0.7 | 0.1 | 0.0 | 0.0 | 0.0 | 0.000 | 0.0 | 0.000 | 0.000 | 368,445 | 368,445 | 41,679 | 41,679 |
| Mar-2010 | 25.3 | 34.1 | 28.8 | 34.7 | 4.8 | 1.1 | 0.2 | 1.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.000 | 0.000 | 0.000 | 0.000 | 2,502,795 | 2,871,240 | 99,121 | 84,225 |
| Apr-2010 | 27.5 | 61.6 | 21.0 | 55.7 | 7.7 | 0.8 | 0.1 | 0.9 | 0.1 | 0.0 | 0.0 | 0.0 | 0.000 | 0.000 | 0.000 | 0.000 | 1,648,241 | 4,519,481 | 59,934 | 73,379 |
| May-2010 | 31.0 | 92.6 | 14.2 | 69.9 | 9.6 | 0.5 | 0.1 | 0.8 | 0.1 | 0.0 | 0.0 | 0.0 | 0.000 | 0.000 | 0.000 | 0.000 | 1,236,137 | 5,755,618 | 39,875 | 62,162 |
| Jun-2010 | 14.4 | 106.9 | 1.4 | 71.3 | 9.8 | 0.1 | 0.0 | 0.7 | 0.1 | 0.0 | 0.0 | 0.0 | 0.000 | 0.000 | 0.000 | 0.000 | 919,612 | 6,675,230 | 64,057 | 62,416 |
| Jul-2010 | 6.6 | 113.5 | 0.8 | 72.1 | 9.9 | 0.1 | 0.0 | 0.6 | 0.1 | 0.0 | 0.0 | 0.0 | 0.000 | 0.000 | 0.000 | 0.000 | 445,800 | 7,121,030 | 67,989 | 62,738 |
| Aug-2010 | 25.9 | 139.4 | 18.6 | 90.7 | 12.5 | 0.7 | 0.1 | 0.7 | 0.1 | 0.0 | 0.0 | 0.0 | 0.000 | 0.000 | 0.000 | 0.000 | 1,909,024 | 9,030,054 | 73,674 | 64,771 |
| Sep-2010 | 30.0 | 169.4 | 2.6 | 93.3 | 12.8 | 0.1 | 0.0 | 0.6 | 0.1 | 0.0 | 0.0 | 0.0 | 0.000 | 0.000 | 0.000 | 0.000 | 2,071,001 | 11,101,055 | 69,033 | 65,525 |
| Oct-2010 | 27.0 | 196.4 | 17.3 | 110.6 | 15.2 | 0.6 | 0.1 | 0.6 | 0.1 | 3.4 | 3.4 | 0.5 | 0.125 | 0.017 | 0.017 | 0.002 | 1,813,778 | 12,914,833 | 67,246 | 65,762 |
| Nov-2010 | 29.0 | 225.4 | 19.4 | 130.0 | 17.9 | 0.7 | 0.1 | 0.6 | 0.1 | 3.4 | 6.7 | 0.9 | 0.116 | 0.016 | 0.030 | 0.004 | 1,794,186 | 14,709,019 | 61,808 | 65,253 |
| Dec-2010 | 16.2 | 241.6 | 11.1 | 141.1 | 19.4 | 0.7 | 0.1 | 0.6 | 0.1 | 3.4 | 10.1 | 1.4 | 0.207 | 0.029 | 0.042 | 0.006 | 1,572,604 | 16,281,623 | 96,925 | 67,379 |
| Jan-2011 | 18.6 | 260.3 | 21.8 | 162.9 | 22.4 | 1.2 | 0.2 | 0.6 | 0.1 | 0.0 | 10.1 | 1.4 | 0.000 | 0.000 | 0.039 | 0.005 | 1,573,673 | 17,855,296 | 84,540 | 68,607 |
| Feb-2011 | 17.5 | 277.8 | 30.9 | 193.8 | 26.7 | 1.8 | 0.2 | 0.7 | 0.1 | 0.0 | 10.1 | 1.4 | 0.000 | 0.000 | 0.036 | 0.005 | 1,638,344 | 19,493,640 | 93,620 | 70,183 |
| Mar-2011 | 23.8 | 301.6 | 22.1 | 215.9 | 29.7 | 0.9 | 0.1 | 0.7 | 0.1 | 0.0 | 10.1 | 1.4 | 0.000 | 0.000 | 0.033 | 0.005 | 1,813,880 | 21,307,520 | 76,173 | 70,656 |
| Apr-2011 | 19.5 | 321.1 | 19.6 | 235.5 | 32.4 | 1.0 | 0.1 | 0.7 | 0.1 | 4.1 | 14.2 | 2.0 | 0.210 | 0.029 | 0.044 | 0.006 | 1,602,100 | 22,909,620 | 82,226 | 71,358 |
| May-2011 | 29.6 | 350.7 | 36.1 | 271.6 | 37.4 | 1.2 | 0.2 | 0.8 | 0.1 | 4.1 | 18.3 | 2.5 | 0.139 | 0.019 | 0.052 | 0.007 | 2,433,422 | 25,343,041 | 82,218 | 72,274 |
| Jun-2011 | 18.9 | 369.6 | 32.0 | 303.7 | 41.8 | 1.7 | 0.2 | 0.8 | 0.1 | 4.1 | 22.4 | 3.1 | 0.217 | 0.030 | 0.061 | 0.008 | 1,344,719 | 26,687,761 | 71,029 | 72,211 |
| Jul-2011 | 29.6 | 399.2 | 19.0 | 322.7 | 44.4 | 0.6 | 0.1 | 0.8 | 0.1 | 0.6 | 23.0 | 3.2 | 0.021 | 0.003 | 0.058 | 0.008 | 1,457,277 | 28,145,038 | 49,214 | 70,505 |
| Aug-2011 | 19.0 | 418.2 | 23.1 | 345.8 | 47.6 | 1.2 | 0.2 | 0.8 | 0.1 | 0.6 | 23.7 | 3.3 | 0.033 | 0.005 | 0.057 | 0.008 | 1,498,254 | 29,643,292 | 78,884 | 70,885 |
| Sep-2011 | 15.2 | 433.3 | 13.9 | 359.7 | 49.5 | 0.9 | 0.1 | 0.8 | 0.1 | 0.6 | 24.3 | 3.3 | 0.042 | 0.006 | 0.056 | 0.008 | 1,016,677 | 30,659,968 | 67,067 | 70,752 |
| Oct-2011 | 31.0 | 464.3 | 32.2 | 391.9 | 54.0 | 1.0 | 0.1 | 0.8 | 0.1 | 0.7 | 25.0 | 3.4 | 0.022 | 0.003 | 0.054 | 0.007 | 2,207,178 | 32,867,146 | 71,199 | 70,782 |
| Nov-2011 | 18.5 | 482.8 | 24.0 | 416.0 | 57.3 | 1.3 | 0.2 | 0.9 | 0.1 | 0.7 | 25.6 | 3.5 | 0.036 | 0.005 | 0.053 | 0.007 | 1,279,400 | 34,146,546 | 69,219 | 70,722 |
| Dec-2011 | 28.0 | 510.8 | 33.7 | 449.6 | 61.9 | 1.2 | 0.2 | 0.9 | 0.1 | 0.7 | 26.3 | 3.6 | 0.024 | 0.003 | 0.051 | 0.007 | 1,634,523 | 35,781,069 | 58,369 | 70,045 |
| Jan-2012 | 26.0 | 536.9 | 0.4 | 450.0 | 61.9 | 0.0 | 0.0 | 0.8 | 0.1 | 0.0 | 26.3 | 3.6 | 0.000 | 0.000 | 0.049 | 0.007 | 1,687,563 | 37,468,632 | 64,816 | 69,791 |
| Feb-2012 | 29.0 | 565.9 | 36.5 | 486.5 | 67.0 | 1.3 | 0.2 | 0.9 | 0.1 | 0.0 | 26.3 | 3.6 | 0.000 | 0.000 | 0.046 | 0.006 | 1,950,884 | 39,419,516 | 67,272 | 69,662 |
| Mar-2012 | 31.0 | 596.9 | 0.7 | 487.2 | 67.1 | 0.0 | 0.0 | 0.8 | 0.1 | 0.0 | 26.3 | 3.6 | 0.000 | 0.000 | 0.044 | 0.006 | 2,033,667 | 41,453,183 | 65,602 | 69,451 |
| Apr-2012 | 24.0 | 620.9 | 19.4 | 506.7 | 69.7 | 0.8 | 0.1 | 0.8 | 0.1 | 0.0 | 26.3 | 3.6 | 0.000 | 0.000 | 0.042 | 0.006 | 1,622,581 | 43,075,763 | 67,656 | 69,382 |
| May-2012 | 31.0 | 651.9 | 17.7 | 524.4 | 72.2 | 0.6 | 0.1 | 0.8 | 0.1 | 0.0 | 26.3 | 3.6 | 0.000 | 0.000 | 0.040 | 0.006 | 1,706,601 | 44,782,364 | 55,052 | 68,700 |
| Jun-2012 | 30.0 | 681.9 | 10.9 | 535.3 | 73.7 | 0.4 | 0.1 | 0.8 | 0.1 | 0.0 | 26.3 | 3.6 | 0.000 | 0.000 | 0.039 | 0.005 | 1,464,002 | 46,246,366 | 48,800 | 67,825 |
| Jul-2012 | 31.0 | 712.9 | 19.4 | 554.8 | 76.4 | 0.6 | 0.1 | 0.8 | 0.1 | 0.8 | 27.1 | 3.7 | 0.025 | 0.003 | 0.038 | 0.005 | 1,772,623 | 48,018,990 | 57,181 | 67,362 |
| Aug-2012 | 31.0 | 743.9 | 0.8 | 555.5 | 76.5 | 0.0 | 0.0 | 0.7 | 0.1 | 0.8 | 27.8 | 3.8 | 0.025 | 0.003 | 0.037 | 0.005 | 1,934,078 | 49,953,068 | 62,390 | 67,155 |
| Sep-2012 | 30.0 | 773.9 | 0.8 | 556.3 | 76.6 | 0.0 | 0.0 | 0.7 | 0.1 | 0.8 | 28.6 | 3.9 | 0.026 | 0.004 | 0.037 | 0.005 | 1,957,400 | 51,910,467 | 65,247 | 67,081 |
| Oct-2012 | 27.9 | 801.8 | 19.4 | 575.7 | 79.3 | 0.7 | 0.1 | 0.7 | 0.1 | 2.3 | 30.9 | 4.2 | 0.081 | 0.011 | 0.038 | 0.005 | 1,748,026 | 53,658,493 | 62,547 | 66,923 |
| Nov-2012 | 21.3 | 823.1 | 12.5 | 588.2 | 81.0 | 0.6 | 0.1 | 0.7 | 0.1 | 2.3 | 33.1 | 4.6 | 0.106 | 0.015 | 0.040 | 0.006 | 1,503,570 | 55,162,063 | 70,448 | 67,014 |
| Dec-2012 | 0.0 | 823.1 | 0.0 | 588.2 | 81.0 | 0.0 | 0.0 | 0.7 | 0.1 | 2.3 | 35.4 | 4.9 | 0.000 | 0.000 | 0.043 | 0.006 | 0 | 55,162,063 | 0 | 67,014 |
| Jan-2013 | 20.6 | 843.8 | 19.4 | 607.6 | 83.6 | 0.9 | 0.1 | 0.7 | 0.1 | 0.0 | 35.4 | 4.9 | 0.000 | 0.000 | 0.042 | 0.006 | 849,185 | 56,011,248 | 41,200 | 66,384 |
| Feb-2013 | 25.6 | 869.3 | 24.1 | 631.7 | 87.0 | 0.9 | 0.1 | 0.7 | 0.1 | 0.0 | 35.4 | 4.9 | 0.000 | 0.000 | 0.041 | 0.006 | 1,666,918 | 57,678,166 | 65,204 | 66,349 |
| Mar-2013 | 19.9 | 889.2 | 11.5 | 643.2 | 88.5 | 0.6 | 0.1 | 0.7 | 0.1 | 0.0 | 35.4 | 4.9 | 0.000 | 0.000 | 0.040 | 0.005 | 1,761,271 | 59,439,437 | 88,704 | 66,848 |
| Apr-2013 | 23.4 | 912.6 | 13.8 | 657.0 | 90.4 | 0.6 | 0.1 | 0.7 | 0.1 | 0.1 | 35.5 | 4.9 | 0.006 | 0.001 | 0.039 | 0.005 | 1,447,345 | 60,886,782 | 61,871 | 66,720 |
| May-2013 | 27.0 | 939.6 | 13.0 | 670.0 | 92.2 | 0.5 | 0.1 | 0.7 | 0.1 | 0.1 | 35.7 | 4.9 | 0.005 | 0.001 | 0.038 | 0.005 | 1,773,399 | 62,660,181 | 65,639 | 66,689 |
| Jun-2013 | 14.2 | 837.3 | 9.4 | 597.6 | 82.3 | 0.7 | 0.1 | 0.7 | 0.1 | 0.1 | 33.3 | 4.6 | 0.009 | 0.001 | 0.040 | 0.005 | 911,736 | 63,571,917 | 64,229 | 75,922 |
| Jul-2013 | 31.0 | 854.1 | 18.6 | 606.8 | 83.5 | 0.6 | 0.1 | 0.7 | 0.1 | 0.0 | 35.4 | 4.9 | 0.000 | 0.000 | 0.041 | 0.006 | 1,689,342 | 65,261,259 | 54,495 | 76,406 |
| Aug-2013 | 31.0 | 874.8 | 22.9 | 630.5 | 86.8 | 0.7 | 0.1 | 0.7 | 0.1 | 0.0 | 35.4 | 4.9 | 0.000 | 0.000 | 0.040 | 0.006 | 2,248,784 | 67,510,043 | 72,541 | 77,176 |
| Sep-2013 | 30.0 | 899.3 | 14.0 | 645.7 | 88.9 | 0.5 | 0.1 | 0.7 | 0.1 | 0.0 | 35.4 | 4.9 | 0.000 | 0.000 | 0.039 | 0.005 | 1,705,884 | 69,215,927 | 56,863 | 76,965 |
| Oct-2013 | 26.0 | 915.2 | 130.7 | 773.9 | 106.5 | 5.0 | 0.7 | 0.8 | 0.1 | 3.0 | 38.4 | 5.3 | 0.115 | 0.016 | 0.042 | 0.006 | 1,732,430 | 70,948,357 | 66,632 | 77,525 |
| Nov-2013 | 25.0 | 937.6 | 34.2 | 691.2 | 95.1 | 1.4 | 0.2 | 0.7 | 0.1 | 3.0 | 38.5 | 5.3 | 0.120 | 0.017 | 0.041 | 0.006 | 1,451,250 | 72,399,607 | 58,050 | 77,221 |
| Dec-2013 | 28.0 | 967.6 | 13.0 | 683.0 | 94.0 | 0.5 | 0.1 | 0.7 | 0.1 | 3.0 | 38.7 | 5.3 | 0.107 | 0.015 | 0.040 | 0.006 | 2,044,456 | 74,444,063 | 73,016 | 76,938 |

| Free Phase | | |
|---|---|---|
| | Total Recovery (gallons) | Total Recovery (pounds) |
| Bailing Activities | 33.0 | 239.7 |
| Surge Tank[5] | 786.0 | 5709.9 |
| Dissolved Phase[4] | 482.2 | 3503.1 |
| **TOTAL** | **1301.2** | **9452.7** |

Notes:
[1]Daily recovery rate = total volume for month/# days per month
[2]Overall average recovery rate = cumulative total volume/cumulative total run time
[3]Operation of the groundwater treatment system began on February 15, 201(
[4]Monthly dissolved phase totals with an Oil & Grease concentration greater than 5 mg/L were assumed to be free phase LNAPL recovery. For those months, the totals have been replaced with an average of the remaining months of operation.
[5]One time recovery of free phase LNAPL in surge tank on June 23, 2011

# Attachment 4

# Site Inspection Checklist

Please note that "O&M" is referred to throughout this checklist. At sites where Long-Term Response Actions are in progress, O&M activities may be referred to as "system operations" since these sites are not considered to be in the O&M phase while being remediated under the Superfund program.

## Five-Year Review Site Inspection Checklist (Template)

(Working document for site inspection. Information may be completed by hand and attached to the Five-Year Review report as supporting documentation of site status. "N/A" refers to "not applicable.")

| I. SITE INFORMATION | |
|---|---|
| **Site name:** Lenz Oil Services | **Date of inspection:** 3/17/14 |
| **Location and Region:** Lemont, IL Region 5 | **EPA ID:** ILD 005451711 |
| **Agency, office, or company leading the five-year review:** EPA | **Weather/temperature:** Sunny 30°F |

**Remedy Includes:** (Check all that apply)

- Landfill cover/containment
- ✓ Access controls
- ✓ Institutional controls
- ✓ Groundwater pump and treatment
- Surface water collection and treatment
- Other _____
- Monitored natural attenuation
- ✓ Groundwater containment
- ✓ Vertical barrier walls

**Attachments:** Inspection team roster attached Site map attached

**II. INTERVIEWS** (Check all that apply)

1. **O&M site manager** Tim Ree (Name) Engineer (Title) 3/17/14 (Date)
   Interviewed ✓ at site at office by phone Phone no. 651-639-0913
   Problems, suggestions; Report attached _____

2. **O&M staff** _____ (Name) _____ (Title) _____ (Date)
   Interviewed at site at office by phone Phone no. _____
   Problems, suggestions; Report attached _____

3. **Local regulatory authorities and response agencies** (i.e., State and Tribal offices, emergency response office, police department, office of public health or environmental health, zoning office, recorder of deeds, or other city and county offices, etc.) Fill in all that apply.

Agency IEPA
Contact Doyle Wilson — State Proj. Mgr. — 3/17/14 — 217-278-5800
Name — Title — Date — Phone no.
Problems; suggestions; Report attached _____

Agency _____
Contact _____ _____ _____ _____
Name — Title — Date — Phone no.
Problems; suggestions; Report attached _____

Agency _____
Contact _____ _____ _____ _____
Name — Title — Date — Phone no.
Problems; suggestions; Report attached _____

Agency _____
Contact _____ _____ _____ _____
Name — Title — Date — Phone no.
Problems; suggestions; Report attached _____

4. **Other interviews** (optional) Report attached.

**III. ON-SITE DOCUMENTS & RECORDS VERIFIED** (Check all that apply)

| | | | | |
|---|---|---|---|---|
| 1. | **O&M Documents** | | | |
| | O&M manual | ✓ Readily available | Up to date | N/A |
| | As-built drawings | ✓ Readily available | Up to date | N/A |
| | Maintenance logs | ✓ Readily available | Up to date | N/A |
| | Remarks | | | |
| 2. | **Site-Specific Health and Safety Plan** | ✓ Readily available | Up to date | N/A |
| | Contingency plan/emergency response plan | ✓ Readily available | Up to date | N/A |
| | Remarks | | | |
| 3. | **O&M and OSHA Training Records** | ✓ Readily available | Up to date | N/A |
| | Remarks | | | |
| 4. | **Permits and Service Agreements** | | | |
| | Air discharge permit | ✓ Readily available | Up to date | N/A |
| | Effluent discharge | ✓ Readily available | Up to date | N/A |
| | Waste disposal, POTW | Readily available | Up to date | N/A |
| | Other permits | Readily available | Up to date | N/A |
| | Remarks | | | |
| 5. | **Gas Generation Records** | ✓ Readily available | Up to date | N/A |
| | Remarks | | | |
| 6. | **Settlement Monument Records** | ✓ Readily available | Up to date | N/A |
| | Remarks | | | |
| 7. | **Groundwater Monitoring Records** | ✓ Readily available | Up to date | N/A |
| | Remarks | | | |
| 8. | **Leachate Extraction Records** | Readily available | Up to date | N/A |
| | Remarks | | | |
| 9. | **Discharge Compliance Records** | | | |
| | ✓ Air | Readily available | Up to date | N/A |
| | ✓ Water (effluent) | ✓ Readily available | Up to date | N/A |
| | Remarks | | | |
| 10. | **Daily Access/Security Logs** | ✓ Readily available | Up to date | N/A |
| | Remarks | | | |

## IV. O&M COSTS

1. **O&M Organization**

State in-house — Contractor for State
PRP in-house — Contractor for PRP
Federal Facility in-house — Contractor for Federal Facility
Other _____

2. **O&M Cost Records**

Readily available — Up to date
Funding mechanism/agreement in place
Original O&M cost estimate _____ Breakdown attached

Total annual cost by year for review period if available

From _____ To _____ _____ Breakdown attached
Date Date Total cost
From _____ To _____ _____ Breakdown attached
Date Date Total cost
From _____ To _____ _____ Breakdown attached
Date Date Total cost
From _____ To _____ _____ Breakdown attached
Date Date Total cost
From _____ To _____ _____ Breakdown attached
Date Date Total cost

3. **Unanticipated or Unusually High O&M Costs During Review Period**

Describe costs and reasons: _____

## V. ACCESS AND INSTITUTIONAL CONTROLS ✓Applicable N/A

### A. Fencing

1. **Fencing damaged** Location shown on site map Gates secured N/A
Remarks Fence is good

### B. Other Access Restrictions

1. **Signs and other security measures** Location shown on site map N/A
Remarks Signs in place.

**C. Institutional Controls (ICs)**

1. **Implementation and enforcement**

Site conditions imply ICs not properly implemented — Yes — No — N/A
Site conditions imply ICs not being fully enforced — Yes — No — N/A

Type of monitoring (*e.g.*, self-reporting, drive by) _____
Frequency _____
Responsible party/agency _____
Contact _____ _____ _____ _____
Name — Title — Date — Phone no.

Reporting is up-to-date — Yes — No — N/A
Reports are verified by the lead agency — Yes — No — N/A

Specific requirements in deed or decision documents have been met — Yes — No — N/A
Violations have been reported — Yes — No — N/A
Other problems or suggestions: — Report attached

2. **Adequacy** — ICs are adequate — ✓ ICs are inadequate — N/A
Remarks Waiting for one EC to be recorded.

**D. General**

1. **Vandalism/trespassing** — Location shown on site map — ✓ No vandalism evident
Remarks

2. **Land use changes on site** — ✓ N/A
Remarks

3. **Land use changes off site** — ✓ N/A
Remarks

**VI. GENERAL SITE CONDITIONS**

**A. Roads** — Applicable — ✓ N/A

1. **Roads damaged** — Location shown on site map — Roads adequate — ✓ N/A
Remarks

**B. Other Site Conditions**

Remarks_____

## VII. LANDFILL COVERS Applicable N/A

**A. Landfill Surface**

1. **Settlement** (Low spots) Location shown on site map Settlement not evident
   Areal extent_____ Depth_____
   Remarks_____

2. **Cracks** Location shown on site map Cracking not evident
   Lengths_____ Widths_____ Depths_____
   Remarks_____

3. **Erosion** Location shown on site map Erosion not evident
   Areal extent_____ Depth_____
   Remarks_____

4. **Holes** Location shown on site map Holes not evident
   Areal extent_____ Depth_____
   Remarks_____

5. **Vegetative Cover** Grass Cover properly established No signs of stress
   Trees/Shrubs (indicate size and locations on a diagram)
   Remarks_____

6. **Alternative Cover (armored rock, concrete, etc.)** N/A
   Remarks_____

7. **Bulges** Location shown on site map Bulges not evident
   Areal extent_____ Height_____
   Remarks_____

8. **Wet Areas/Water Damage** ✓ Wet areas/water damage not evident
   - Wet areas — Location shown on site map — Areal extent_____
   - Ponding — Location shown on site map — Areal extent_____
   - Seeps — Location shown on site map — Areal extent_____
   - Soft subgrade — Location shown on site map — Areal extent_____

   Remarks_____

9. **Slope Instability** Slides — Location shown on site map ✓ No evidence of slope instability
   Areal extent_____
   Remarks_____

**B. Benches** Applicable ✓ N/A

(Horizontally constructed mounds of earth placed across a steep landfill side slope to interrupt the slope in order to slow down the velocity of surface runoff and intercept and convey the runoff to a lined channel.)

1. **Flows Bypass Bench** — Location shown on site map — N/A or okay
   Remarks_____

2. **Bench Breached** — Location shown on site map — N/A or okay
   Remarks_____

3. **Bench Overtopped** — Location shown on site map — N/A or okay
   Remarks_____

**C. Letdown Channels** Applicable ✓ N/A

(Channel lined with erosion control mats, riprap, grout bags, or gabions that descend down the steep side slope of the cover and will allow the runoff water collected by the benches to move off of the landfill cover without creating erosion gullies.)

1. **Settlement** — Location shown on site map — No evidence of settlement
   Areal extent_____ Depth_____
   Remarks_____

2. **Material Degradation** — Location shown on site map — No evidence of degradation
   Material type_____ Areal extent_____
   Remarks_____

3. **Erosion** — Location shown on site map — No evidence of erosion
   Areal extent_____ Depth_____
   Remarks_____

4. **Undercutting** Location shown on site map No evidence of undercutting
Areal extent_____ Depth_____
Remarks_____

5. **Obstructions** Type_____ No obstructions
Location shown on site map Areal extent_____
Size_____
Remarks_____

6. **Excessive Vegetative Growth** Type_____
No evidence of excessive growth
Vegetation in channels does not obstruct flow
Location shown on site map Areal extent_____
Remarks_____

**D. Cover Penetrations** Applicable ~~N/A~~

1. **Gas Vents** Active Passive
Properly secured/locked Functioning Routinely sampled Good condition
Evidence of leakage at penetration Needs Maintenance
N/A
Remarks_____

2. **Gas Monitoring Probes**
Properly secured/locked Functioning Routinely sampled Good condition
Evidence of leakage at penetration Needs Maintenance N/A
Remarks_____

3. **Monitoring Wells** (within surface area of landfill)
Properly secured/locked Functioning Routinely sampled Good condition
Evidence of leakage at penetration Needs Maintenance N/A
Remarks_____

4. **Leachate Extraction Wells**
Properly secured/locked Functioning Routinely sampled Good condition
Evidence of leakage at penetration Needs Maintenance N/A
Remarks_____

5. **Settlement Monuments** Located Routinely surveyed N/A
Remarks_____

**E. Gas Collection and Treatment** Applicable ✓N/A

1. **Gas Treatment Facilities**
   Flaring Thermal destruction Collection for reuse
   Good condition Needs Maintenance
   Remarks_____

2. **Gas Collection Wells, Manifolds and Piping**
   Good condition Needs Maintenance
   Remarks_____

3. **Gas Monitoring Facilities** (*e.g.*, gas monitoring of adjacent homes or buildings)
   Good condition Needs Maintenance N/A
   Remarks_____

**F. Cover Drainage Layer** Applicable ✓N/A

1. **Outlet Pipes Inspected** Functioning N/A
   Remarks_____

2. **Outlet Rock Inspected** Functioning N/A
   Remarks_____

**G. Detention/Sedimentation Ponds** Applicable ✓N/A

1. **Siltation** Areal extent_____ Depth_____ N/A
   Siltation not evident
   Remarks_____

2. **Erosion** Areal extent_____ Depth_____
   Erosion not evident
   Remarks_____

3. **Outlet Works** Functioning N/A
   Remarks_____

4. **Dam** Functioning N/A
   Remarks_____

**H. Retaining Walls** Applicable ~~N/A~~

1. **Deformations** Location shown on site map Deformation not evident
   Horizontal displacement_____ Vertical displacement_____
   Rotational displacement_____
   Remarks_____

2. **Degradation** Location shown on site map ~~Degradation~~ not evident
   Remarks_____

**I. Perimeter Ditches/Off-Site Discharge** ~~Applicable~~ N/A

1. **Siltation** Location shown on site map ~~Siltation~~ not evident
   Areal extent_____ Depth_____
   Remarks_____

2. **Vegetative Growth** Location shown on site map ~~N/A~~
   Vegetation does not impede flow
   Areal extent_____ Type_____
   Remarks_____

3. **Erosion** Location shown on site map ~~Erosion~~ not evident
   Areal extent_____ Depth_____
   Remarks_____

4. **Discharge Structure** ~~Functioning~~ N/A
   Remarks_____

**VIII. VERTICAL BARRIER WALLS** ~~Applicable~~ N/A

1. **Settlement** Location shown on site map Settlement not evident
   Areal extent_____ Depth_____
   Remarks_____

2. **Performance Monitoring** Type of monitoring ~~dye~~ discharge water
   Performance not monitored
   Frequency Monthly Evidence of breaching
   Head differential_____
   Remarks_____

| IX. GROUNDWATER/SURFACE WATER REMEDIES | Applicable | N/A |
|---|---|---|

**A. Groundwater Extraction Wells, Pumps, and Pipelines** Applicable N/A

1. **Pumps, Wellhead Plumbing, and Electrical**
   Good condition All required wells properly operating Needs Maintenance N/A
   Remarks

2. **Extraction System Pipelines, Valves, Valve Boxes, and Other Appurtenances**
   Good condition Needs Maintenance
   Remarks

3. **Spare Parts and Equipment**
   Readily available Good condition Requires upgrade Needs to be provided
   Remarks

**B. Surface Water Collection Structures, Pumps, and Pipelines** Applicable N/A

1. **Collection Structures, Pumps, and Electrical**
   Good condition Needs Maintenance
   Remarks

2. **Surface Water Collection System Pipelines, Valves, Valve Boxes, and Other Appurtenances**
   Good condition Needs Maintenance
   Remarks

3. **Spare Parts and Equipment**
   Readily available Good condition Requires upgrade Needs to be provided
   Remarks

**C. Treatment System** Applicable N/A

1. **Treatment Train** (Check components that apply)
   - Metals removal — Oil/water separation — Bioremediation
   - Air stripping — Carbon adsorbers
   - Filters _____
   - Additive (*e.g.*, chelation agent, flocculent) _____
   - Others _____
   - Good condition — Needs Maintenance
   - Sampling ports properly marked and functional
   - Sampling/maintenance log displayed and up to date
   - Equipment properly identified
   - Quantity of groundwater treated annually _____
   - Quantity of surface water treated annually _____

   Remarks _____

2. **Electrical Enclosures and Panels** (properly rated and functional)
   N/A — Good condition — Needs Maintenance

   Remarks _____

3. **Tanks, Vaults, Storage Vessels**
   N/A — Good condition — Proper secondary containment — Needs Maintenance

   Remarks _____

4. **Discharge Structure and Appurtenances**
   N/A — Good condition — Needs Maintenance

   Remarks _____

5. **Treatment Building(s)**
   N/A — Good condition (esp. roof and doorways) — Needs repair
   - Chemicals and equipment properly stored

   Remarks _____

6. **Monitoring Wells** (pump and treatment remedy)
   Properly secured/locked — Functioning — Routinely sampled — Good condition
   All required wells located — Needs Maintenance — N/A

   Remarks _____

**D. Monitoring Data**

1. Monitoring Data
   Is routinely submitted on time — Is of acceptable quality

2. Monitoring data suggests:
   Groundwater plume is effectively contained — Contaminant concentrations are declining

**D. Monitored Natural Attenuation**

1. **Monitoring Wells** (natural attenuation remedy)

Properly secured/locked ✓ Functioning ✓ Routinely sampled ✓ Good condition ✓
All required wells located Needs Maintenance N/A
Remarks_____

## X. OTHER REMEDIES

If there are remedies applied at the site which are not covered above, attach an inspection sheet describing the physical nature and condition of any facility associated with the remedy. An example would be soil vapor extraction.

## XI. OVERALL OBSERVATIONS

**A. Implementation of the Remedy**

Describe issues and observations relating to whether the remedy is effective and functioning as designed. Begin with a brief statement of what the remedy is to accomplish (i.e., to contain contaminant plume, minimize infiltration and gas emission, etc.).

**B. Adequacy of O&M**

Describe issues and observations related to the implementation and scope of O&M procedures. In particular, discuss their relationship to the current and long-term protectiveness of the remedy.

| C. | **Early Indicators of Potential Remedy Problems** |
|---|---|
| | Describe issues and observations such as unexpected changes in the cost or scope of O&M or a high frequency of unscheduled repairs, that suggest that the protectiveness of the remedy may be compromised in the future. |
| **D.** | **Opportunities for Optimization** |
| | Describe possible opportunities for optimization in monitoring tasks or the operation of the remedy. |

# Attachment 5

# Environmental Covenant for Property South of Jeans Road

FRED BUCHOLZ
DUPAGE COUNTY RECORDER
FEB.14,2014 RHSP 8:52 AM
OTHER 10-11-402-010
032 PAGES R2014-013119

**This instrument was prepared by:**

Name: Shell J. Bleiweiss
Address: 1 S. Dearborn St. Suite 2100
Chicago, IL 60603-2307

**Please return this instrument to:**

Name: Shell J. Bleiweiss
Address: 1 S. Dearborn St. Suite 2100
Chicago, IL 60603-2307

## ENVIRONMENTAL COVENANT

**1.** This Environmental Covenant is made this 14 day of AUG, 2013, by and among Peter Tameling Trust (Grantor) and the Holder/Grantee further identified in paragraph 3 below pursuant to the Uniform Environmental Covenants Act, 765 ILCS Ch. 122 (UECA) for the purpose of subjecting the Property to the activity and use limitations described herein.

**2.** **Property and Grantor.**

**A. Property:** The real property subject to this Environmental Covenant is located at Route 83 and Jeans Rd, Lemont, DuPage County, Illinois 60439 and is legally described in Appendix A, hereinafter referred to as the "Property". The Property is part of a larger parcel known as the Lenz Oil Superfund Site.

**B. Grantor:** Peter Tameling Trust is the "Grantor" of this Environmental Covenant. The mailing address of the Grantor is June Tameling, Administrator, 7475 Madison St., Unit 1, Willowbrook, IL 60527.

**3.** **Holder (and Grantee for purposes of indexing).** Illinois EPA and the Settling Work Defendants (as defined herein, paragraph 5. B.) are the Holders (and Grantees for purposes of indexing) of this Environmental Covenant pursuant to its authority under Section 3(b) of UECA. The mailing address of the Illinois EPA is 1021 N. Grand Avenue East, P.O. Box 19276, Springfield, IL 62794-9276. The mailing

address of the Settling Work Defendants is c/o Alan Bielawski, Sidley Austin, One S. Dearborn St, Chicago, IL 60603.

4. **Agencies.** The Illinois EPA and the U.S. EPA are "Agencies" within the meaning of Section 2(2) of UECA. The Agencies have approved the environmental response project described in paragraph 5 below and may enforce this Environmental Covenant pursuant to Section 11 of UECA.

5. **Environmental Response Project and Administrative Record.**

**A.** This Environmental Covenant arises under an environmental response project as defined in Section 2(5) of UECA.

**B.** The Property is part of the Lenz Oil Superfund Site, which the U.S. EPA, pursuant to Section 105 of the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA"), 42 U.S.C. § 9605, placed on the National Priorities List, set forth at 40 C.F.R. Part 300, Appendix B. In a Record of Decision (ROD) signed by the U.S. EPA Region 5 Superfund Division Director on September 30, 1999, the U.S. EPA approved a plan for environmental remediation of the Site. In the Consent Decree signed on August 14, 2002, *United States of America and the State of Illinois v. Alpha Construction, et al.,* Case No. 02 C 3609 (N.D. Ill.), Settling Work Defendants, as defined in the Consent Decree at p. 14 and listed in Appendix D.1 to the Consent Decree agreed to implement the remedial action plan in the ROD including the excavation of the principal threat area, the treatment of the contaminated material via solidification/stabilization (S/S), the disposal of the treated material within a corrective action management unit (CAMU), and the implementation of a pump-and-treat system for contaminants that remain in the aquifer after the other actions are completed. In April 2007, the U.S. EPA issued an Explanation of Significant Differences (ESD) that changed the Phase I remedy alternative from excavation and treatment via solidification/stabilization to Vacuum Enhanced Recovery (VER). In April 2008, the U.S. EPA approved the Remedial Design. On November 19, 2010, the U.S. EPA approved the Phase I Remedial Action Construction Completion Report. The remedial action plan requires implementation and compliance with land and groundwater activity and use limitations at the Lenz Oil Site. The Consent Decree also provides that U.S. EPA may require additional response activity, including changing the remedy, under certain limited circumstances.

**C.** Grantor wishes to cooperate fully with the Agencies by granting the required environmental covenants at the Site.

**D.** The Administrative Record for the environmental response project at the Lenz Oil Site (including the Property) is maintained at the U.S. EPA Superfund Record Center, 7th Floor, 77 West Jackson Blvd, Chicago, Illinois 60604. Persons may also contact the Freedom of Information Act ("FOIA") officer, Illinois EPA, 1021 N. Grand Avenue East, P.O. Box 19276, Springfield, IL 62794-9276 or Lemont Village Hall, 508

Lemont Street, Lemont, IL 60439 for the Administrative Record or other information concerning the Site.

6. **Grant of Covenant. Covenant Runs With The Land.** Grantor creates this Environmental Covenant pursuant to UECA so that the Activity and Use Limitations and associated terms and conditions set forth herein shall "run with the land" in accordance with Section 5(a) of UECA and shall be binding on Grantor, its heirs, successors and assigns, and on all present and subsequent owners, occupants, lessees or other person acquiring an interest in the Property.

7. **Activity and Use Limitations.** The following Activity and Use Limitations apply to the use of the Property:

**A.** The Property shall not be used in any manner that would interfere with or adversely affect the integrity or protectiveness of the remedial action which has been implemented or which will be implemented pursuant to the Consent Decree unless the written consent of U.S. EPA to such use is first obtained. The restrictions on the Property shall include, but are not limited to, not allowing any drilling, digging, building, or the installation, construction, removal or use of any buildings, wells, pipes, roads, ditches or any other structures on the Property unless the written consent of U.S. EPA to such use or activity is first obtained.

**B.** There shall be no excavating for landscaping, construction or other activities which removes soil from any portion of the Property unless the written consent of U.S. EPA to such use or activity is first obtained.

**C.** Construction of wells and activities that extract, consume, or otherwise use any groundwater are prohibited on the Property.

**D.** Notwithstanding the above, implementation of the Work as defined in the Consent Decree shall be permitted and shall not require any further consent of U.S. EPA. Use and maintenance of buildings and equipment present as of the effective date of this Environmental Covenant also shall be permitted and shall not require any further consent of U.S. EPA.

8. **Access to the Property.** Grantor agrees that U.S. EPA, the Illinois EPA and the Settling Work Defendants, their successors and assigns, and their respective officers, employees, agents contractors, and other invitees (collectively, "Access Grantees") shall have and hereby grants to each of them an unrestricted right of access to the Property to undertake the Permitted Uses described in Paragraph 9 below and, in connection therewith, to use all roads, drives and paths, paved or unpaved, located on the Property. The right of access granted under this Paragraph 8 shall be irrevocable while this Covenant remains in full force and effect.

9. **Permitted Uses.** The right of access granted under Paragraph 8 of this Environmental Covenant shall provide Access Grantees with access at all reasonable times to the Property, for the purposes of conducting any activity related to the Consent Decree of the purchase of the Property, including but not limited to, the following activities:

**A.** Implementing, operating and maintaining the Work pursuant to the Consent Decree;

**B.** Monitoring the Work;

**C.** Conducting investigations relating to contamination at or near the Property, including, but not limited to, the surface or subsurface erection or placement of physical or mechanical objects necessary to those investigations;

**D.** Obtaining samples;

**E.** Assessing the need for, planning, or implementing additional response actions at or near the Property;

**F.** Verifying any data or information submitted to U.S. EPA or Illinois EPA;

**G.** Inspecting and copying records, operating logs, contracts, or other documents maintained or generated by Settling Work Defendants or their agents, consistent with Section XXVIII (Access to Information) of the Consent Decree;

**H.** Verifying, assessing, monitoring, implementing and enforcing the Activity and Use Restrictions set forth in Paragraph 7;

**I.** Assessing Settling Work Defendants' compliance with the Consent Decree; and

**J.** Verifying that no action is being taken on the Property in violation of the terms of this instrument, the Work pursuant to the Consent Decree or of any federal or state environmental laws or regulations.

Nothing in this document shall limit or otherwise affect U.S. EPA and Illinois EPA's rights of entry and access or U.S. EPA's and Illinois EPA's authority to take response actions under CERCLA, the National Contingency Plan ("NCP"), RCRA or other federal and state law.

**10. <u>Reserved rights of Grantor:</u>** Grantor hereby reserves unto itself, its successors, and assigns, including heirs, lessees and occupants, all rights and privileges in and to the

use of the Property which are not incompatible with the activity and use limitations identified herein.

11. **No Public Access and Use:** No right of access or use by the general public to any portion of the Property is conveyed by this instrument.

12. **Future Conveyances, Notice and Reservation:**

A. Grantor agrees to include in any future instrument conveying any interest in any portion of the Property, including but not limited to deeds, leases and mortgages, a notice and reservation which is in substantially the following form:

**THE INTEREST CONVEYED HEREBY IS SUBJECT TO AND GRANTOR SPECIFICALLY RESERVES THE ENVIRONMENTAL COVENANT EXECUTED UNDER THE UNIFORM ENVIRONMENTAL COVENANTS ACT (UECA) AT 765 ILCS CH. 122 RECORDED IN THE OFFICIAL PROPERTY RECORDS OF DUPAGE COUNTY, ILLINOIS ON _____ AS DOCUMENT NO. _____, IN FAVOR OF AND ENFORCEABLE BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY AS A UECA HOLDER AND THE U.S. ENVIRONMENTAL PROTECTION AGENCY AS A UECA AGENCY.**

B. Grantor agrees to provide written notice to Illinois EPA and U.S. EPA within 30 days after any conveyance of fee title to the Property or any portion of the Property. The notice shall identify the name and contact information of the new Owner, and the portion of the Property conveyed to that Owner.

13. **Enforcement and Compliance.**

A. **Civil Action for Injunction or Equitable Relief.** This Environmental Covenant may be enforced through a civil action for injunctive or other equitable relief for any violation of any term or condition of this Environmental Covenant, including violation of the Activity and Use Limitations under Paragraph 7 and denial of Right of Access under Paragraph 8. Such an action may be brought individually or jointly by:

i. Settling Work Defendants;
ii. the Illinois Environmental Protection Agency;
iii. U.S. Environmental Protection Agency; and
iv. Peter Tameling Trust.

B. **Other Authorities Not Affected. No Waiver of Enforcement.** All remedies available hereunder shall be in addition to any and all other remedies at law or in equity, including CERCLA. Nothing in this Environmental Covenant affects U.S. EPA or Illinois EPA's authority to take or require performance of response actions to address releases or threatened releases of hazardous substances or pollutants or contaminants at or from the Property, or to enforce a consent order, consent decree or other settlement

agreement entered into by U.S. EPA or Illinois EPA. Enforcement of the terms of this instrument shall be at the discretion of the Holders, the Settling Work Defendants, the U.S. EPA and Illinois EPA and any forbearance, delay or omission to exercise its rights under this instrument in the event of a breach of any term of this instrument shall not be deemed to be a waiver by the Holders, the Settling Work Defendants, U.S. EPA or Illinois EPA of such term or of any subsequent breach of the same or any other term, or of any of the rights of the Holders, the Settling Work Defendants, U.S. EPA or Illinois EPA of such term or of any subsequent breach of the same or any other term, or of any of the rights of the Holders, the Settling Work Defendants, U.S. EPA or Illinois EPA.

**C. Former Owners And Interest Holders Subject to Enforcement.** An Owner, or other person that holds any right, title or interest in or to the Property remains subject to enforcement with respect to any violation of this Environmental Covenant by the Owner or other person which occurred during the time when the Owner or other person was bound by this Environmental Covenant regardless of whether the Owner or other person has subsequently conveyed the fee title, or other right, title or interest, to another person.

14. **Waiver of certain defenses:** This Environmental Covenant may not be extinguished, limited, or impaired through issuance of a tax deed, foreclosure of a tax lien, or application of the doctrine of adverse possession, prescription, abandonment, waiver, lack of enforcement, or acquiescence, or similar doctrine as set forth in Section 9 of UECA.

15. **Representations and Warranties:** Grantor hereby represents and warrants to the Illinois EPA, U.S. EPA and any other signatories to this Environmental Covenant that, at the time of execution of this Environmental Covenant, that the Grantor has a good and lawful right and power to grant this Environmental Covenant, that the Property is free and clear of encumbrances, except those noted on Appendix C attached hereto, and that the Grantor will forever warrant and defend the title thereto and the quiet possession thereof. After recording this instrument, Settling Work Defendants will provide a copy of this Environmental Covenant to all holders of record of the encumbrances including those entities noted on Appendix C.

16. **Amendment or Termination.** This Environmental Covenant may be amended or terminated by consent only if the amendment or termination is signed by the Illinois EPA, U.S. EPA and the current owner of the fee simple of the Property or the Receiver, unless waived by the Agencies.

17. **Notices:** Any notice, demand, request, consent, approval, or communication that either party desires or is required to give to the other shall be in writing and shall either be served personally or sent by first class mail, postage prepaid, addressed as follows:

To Grantor:

Peter Tameling Trust
c/o June Tameling, Administrator
7575 Madison St. Unit 1
Willowbrook, IL 60527

To Holder:

Settling Work Defendants, c/o Alan Bielawski
Sidley Austin, One S Dearborn St
Chicago, IL 60603

To Agencies:

U.S. Environmental Protection Agency
Superfund Division Director
77 West Jackson Boulevard
Chicago, IL 60604

Illinois Environmental Protection Agency
Chief, Bureau of Land
1021 N. Grand Avenue East
P.O. Box 19276
Springfield, IL 62794-9276

18. **Recording and Notice of Environmental Covenant, Amendments and Termination.**

**A. The Original Environmental Covenant.** An Environmental Covenant must be recorded in the Office of the Recorder or Registrar of Titles of the county in which the property that is the subject of the Environmental Covenant is located. Within 30 days after the Illinois EPA and U.S. EPA (whichever is later) sign and deliver to Grantor this Environmental Covenant, the Grantor shall record this Environmental Covenant in the office of the Recorder of Deeds of DuPage County, State of Illinois.

**B. Termination, Amendment or Modification.** Within 30 days after Illinois EPA and U.S. EPA (whichever is later) sign and deliver to Owner or Receiver/Grantor any termination, amendment or modification of this Environmental Covenant, the Owner or Receiver/Grantor shall record the amendment, modification, or notice of termination of this Environmental Covenant in the office of the County Recorder or Registrar of Titles in which the Property is located.

**C. Providing Notice of Covenant, Termination, Amendment or Modification.** Within 30 days after recording this Environmental Covenant, the Settling Work Defendants shall transmit a copy of the Environmental Covenant in recorded form to:

i. the Illinois EPA;
ii. the U.S. EPA;
iii. each person holding a recorded interest in the Property, including those interests in Appendix C;
iv. each person in possession of the Property; and
v. ~~each political subdivision in which the Property is located.~~

Within 30 days after recording a termination, amendment or modification of this Environmental Covenant, the Owner or Settling Work Defendants shall transmit a copy of the document in recorded form to the persons listed in items i to v above.

**19. General Provisions:**

**A. Controlling law:** This Environmental Covenant shall be construed according to and governed by the laws of the State of Illinois and the United States of America.

**B. Liberal construction:** Any general rule of construction to the contrary notwithstanding, this instrument shall be liberally construed in favor of the Grantor or Holders to affect the purpose of this instrument and the policy and purpose of the environmental response project and its authorizing legislation. If any provision of this instrument is found to be ambiguous, an interpretation consistent with the purpose of this instrument that would render the provision valid shall be favored over any interpretation that would render it invalid.

**C. No Forfeiture:** Nothing contained herein will result in a forfeiture or reversion of Grantor's title in any respect.

**D. Joint Obligation:** If there are two or more parties identified as Grantor herein, the obligations imposed by this instrument upon them shall be joint and several.

**E. Captions:** The captions in this instrument have been inserted solely for convenience of reference and are not a part of this instrument and shall have no effect upon construction or interpretation.

**20. Effective Date.** This Environmental Covenant is effective on the date of acknowledgement of the signature of the Illinois EPA and U.S. EPA, whichever is later.

**21. List of Appendices:**

**Appendix A – Legal Description and Map of the Property**

**Appendix B – Location of Monitoring Wells**
**Appendix C – List of Recorded Encumbrances**

[Signature Pages to follow]

[THE UNDERSIGNED REPRESENTATIVE OF THE GRANTOR REPRESENTS AND CERTIFIES THAT HE/SHE IS AUTHORIZED TO EXECUTE THIS ENVIRONMENTAL COVENANT.]

IN WITNESS WHEREOF, THIS INSTRUMENT HAS BEEN EXECUTED ON THE DATES INDICATED BELOW:

**FOR THE GRANTOR:**

Peter Tameling Trust

By _____ (signature)

June Tameling (print)

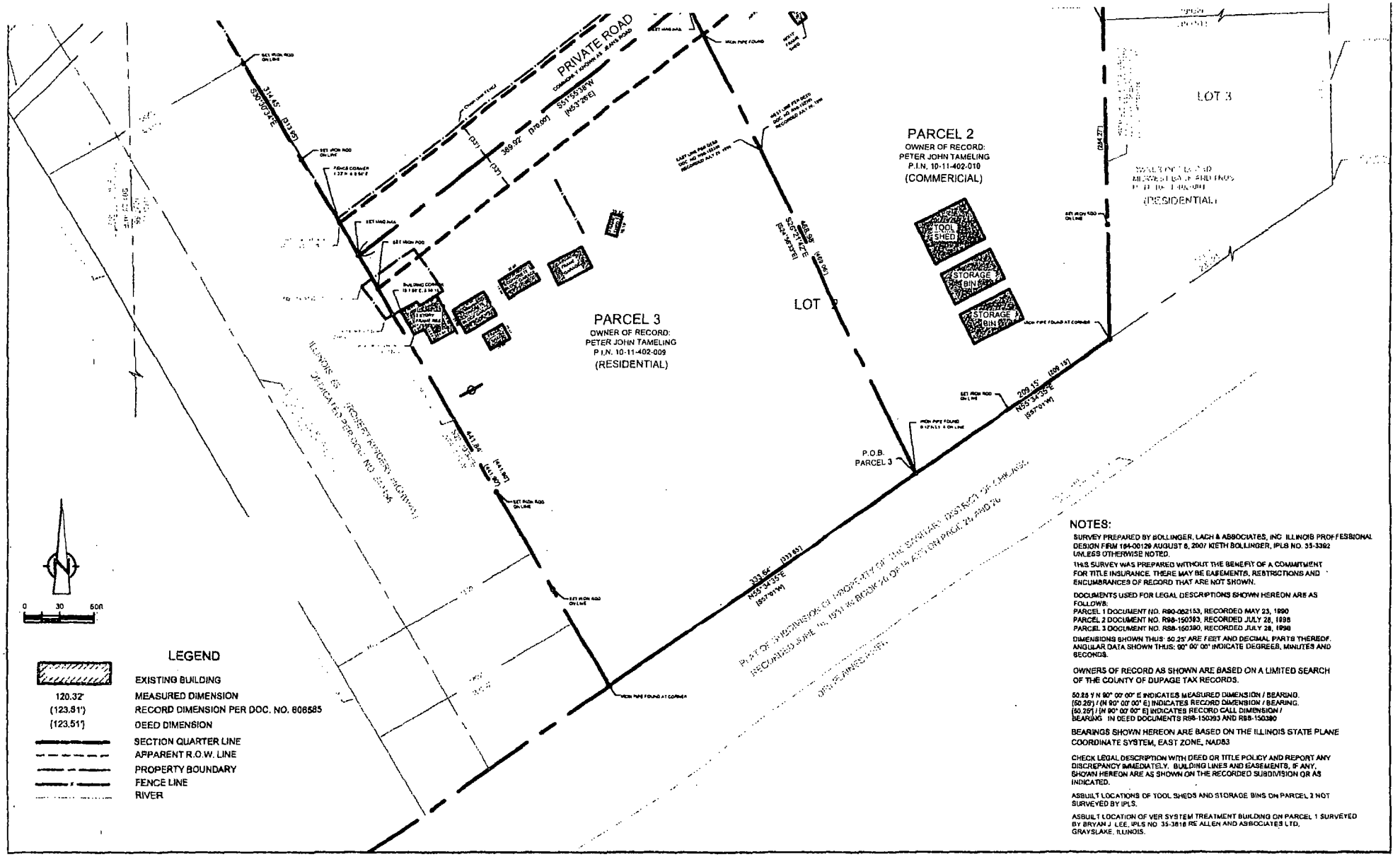
[Title] Administrator (print)

State of Illinois )
) SS.
County of Dupage )

On Aug 14, 2013, this instrument was acknowledged before me by, _____, [use following when Grantor is an organization] [Title of Name of Grantor, on behalf of Grantor].

_____ (signature)
Notary Public
My Commission Expires _____

OFFICIAL SEAL
ALLAN C ALONGI
NOTARY PUBLIC - STATE OF ILLINOIS
MY COMMISSION EXPIRES:06/12/14




## LEGEND

| | |
|---|---|
| | EXISTING BUILDING |
| 120.32' | MEASURED DIMENSION |
| (123.81') | RECORD DIMENSION PER DOC. NO. 606585 |
| [123.51] | DEED DIMENSION |
| | SECTION QUARTER LINE |
| | APPARENT R.O.W. LINE |
| | PROPERTY BOUNDARY |
| | FENCE LINE |
| | RIVER |

## NOTES:

SURVEY PREPARED BY BOLLINGER, LACH & ASSOCIATES, INC ILLINOIS PROFFESSIONAL DESIGN FIRM 184-00129 AUGUST 8, 2007 KIETH BOLLINGER, IPLS NO. 35-3392 UNLESS OTHERWISE NOTED.

THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A COMMITMENT FOR TITLE INSURANCE. THERE MAY BE EASEMENTS, RESTRICTIONS AND ENCUMBRANCES OF RECORD THAT ARE NOT SHOWN.

DOCUMENTS USED FOR LEGAL DESCRIPTIONS SHOWN HEREON ARE AS FOLLOWS:
PARCEL 1 DOCUMENT NO. R90-062153, RECORDED MAY 23, 1990
PARCEL 2 DOCUMENT NO. R98-150393, RECORDED JULY 28, 1998
PARCEL 3 DOCUMENT NO. R98-150390, RECORDED JULY 28, 1998

DIMENSIONS SHOWN THUS: 50.25' ARE FEET AND DECIMAL PARTS THEREOF. ANGULAR DATA SHOWN THUS: 90° 00' 00" INDICATE DEGREES, MINUTES AND SECONDS.

OWNERS OF RECORD AS SHOWN ARE BASED ON A LIMITED SEARCH OF THE COUNTY OF DUPAGE TAX RECORDS.

50.25 Y N 90° 00' 00" E INDICATES MEASURED DIMENSION / BEARING.
(50.25') / (N 90° 00' 00" E) INDICATES RECORD DIMENSION / BEARING.
(50.25') / (N 90° 00' 00" E) INDICATES RECORD CALL DIMENSION / BEARING IN DEED DOCUMENTS R98-150393 AND R98-150390

BEARINGS SHOWN HEREON ARE BASED ON THE ILLINOIS STATE PLANE COORDINATE SYSTEM, EAST ZONE, NAD83

CHECK LEGAL DESCRIPTION WITH DEED OR TITLE POLICY AND REPORT ANY DISCREPANCY IMMEDIATELY. BUILDING LINES AND EASEMENTS, IF ANY, SHOWN HEREON ARE AS SHOWN ON THE RECORDED SUBDIVISION OR AS INDICATED.

ASBUILT LOCATIONS OF TOOL SHEDS AND STORAGE BINS ON PARCEL 2 NOT SURVEYED BY IPLS.

ASBUILT LOCATION OF VER SYSTEM TREATMENT BUILDING ON PARCEL 1 SURVEYED BY BRYAN J. LEE, IPLS NO. 35-3818 RE ALLEN AND ASSOCIATES LTD, GRAYSLAKE, ILLINOIS.

| No. | Revision | Date | Initial |
|---|---|---|---|
| | | | |

SCALE VERIFICATION

THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.

Approved

PROPERTY BOUNDARIES

LEMONT, ILLINOIS

LENZ OIL SITE

CONESTOGA-ROVERS & ASSOCIATES

Source Reference:

| Project Manager: | Reviewed By: | Date: |
|---|---|---|
| | T.R | AUGUST 2011 |

| Scale: | Project No.: | Report No. | Drawing No.: |
|---|---|---|---|
| 1:60 | 015169-01 | PRES001 | 1 |

015169-01(PRES001)GN-DE001 AUG 03/2011

**FOR THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY**

By Lisa Bonnett (signature)

Lisa Bonnett, Director
Illinois Environmental Protection Agency

OFFICIAL SEAL
SHERRIE A. ELZINGA
NOTARY PUBLIC, STATE OF ILLINOIS
MY COMMISSION EXPIRES 12-23-2015

State of Illinois )
) SS.
County of Sangamon

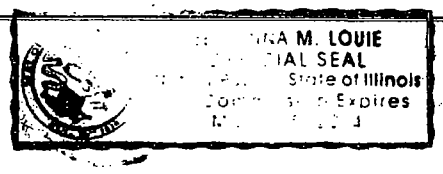
This instrument was acknowledged before me on November 15, 2013, by Lisa Bonnett, the Director of the Illinois Environmental Protection Agency, a state agency, on behalf of the State of Illinois.

Sherrie A. Elzinga (signature)
Notary Public
My Commission Expires 12/23/2015

**FOR THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

On behalf of the Administrator of the
United States Environmental Protection Agency

By: Richard C Karl
Richard C. Karl, Director
Superfund Division
U.S. Environmental Protection Agency, Region 5



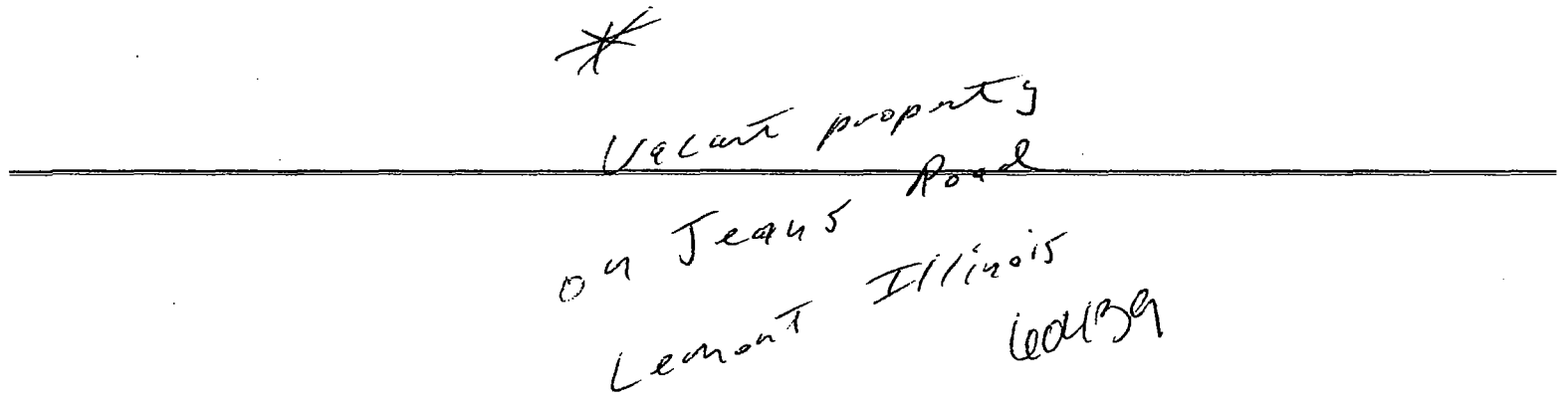

STATE OF ILLINOIS )
) SS.
COUNTY OF COOK )

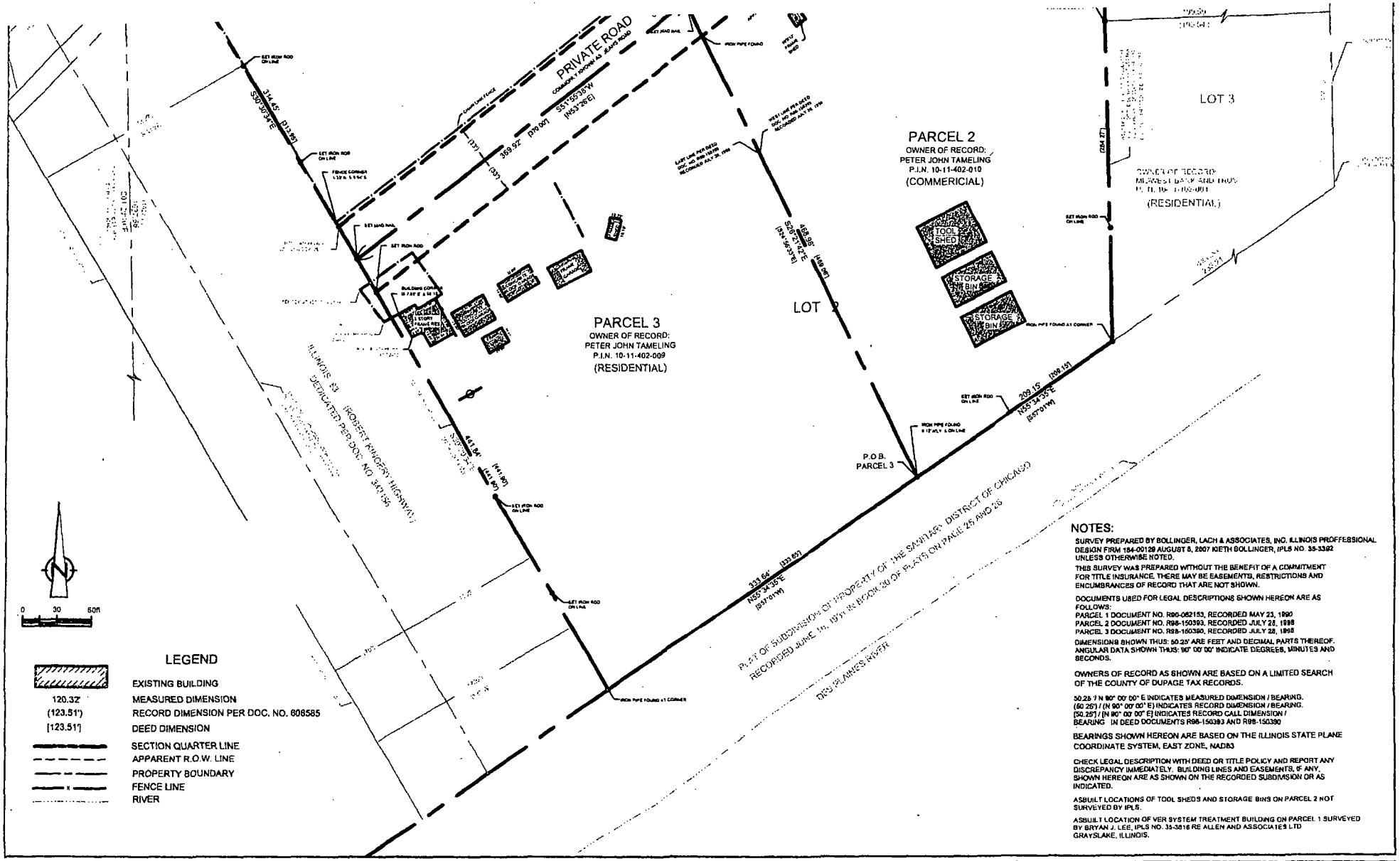
The foregoing instrument was acknowledged before me this 19th day of DECEMBER, 2013, by Richard C. Karl, Director, Superfund Division, Region 5 of the United States Environmental Protection Agency.

Bertanna M. Louie (signature)
Notary Public
My Commission Expires March 15, 2014

## APPENDIX A: Legal Description and Map of the Property

The legal description of the Tameling Property is shown as Parcel 2 and Parcel 3 on the following map.






## LEGEND

| | |
|---|---|
| | EXISTING BUILDING |
| 120.32' | MEASURED DIMENSION |
| (123.51') | RECORD DIMENSION PER DOC. NO. 608585 |
| [123.51] | DEED DIMENSION |
| | SECTION QUARTER LINE |
| | APPARENT R.O.W. LINE |
| | PROPERTY BOUNDARY |
| | FENCE LINE |
| | RIVER |

## NOTES:

SURVEY PREPARED BY BOLLINGER, LACH & ASSOCIATES, INC. ILLINOIS PROFFESSIONAL DESIGN FIRM 184-00129 AUGUST 8, 2007 KIETH BOLLINGER, IPLS NO. 35-3392 UNLESS OTHERWISE NOTED.

THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A COMMITMENT FOR TITLE INSURANCE. THERE MAY BE EASEMENTS, RESTRICTIONS AND ENCUMBRANCES OF RECORD THAT ARE NOT SHOWN.

DOCUMENTS USED FOR LEGAL DESCRIPTIONS SHOWN HEREON ARE AS FOLLOWS:
PARCEL 1 DOCUMENT NO. R90-062153, RECORDED MAY 23, 1990
PARCEL 2 DOCUMENT NO. R98-150393, RECORDED JULY 28, 1998
PARCEL 3 DOCUMENT NO. R98-150390, RECORDED JULY 28, 1998

DIMENSIONS SHOWN THUS: 50.25' ARE FEET AND DECIMAL PARTS THEREOF. ANGULAR DATA SHOWN THUS: 90° 00' 00" INDICATE DEGREES, MINUTES AND SECONDS.

OWNERS OF RECORD AS SHOWN ARE BASED ON A LIMITED SEARCH OF THE COUNTY OF DUPAGE TAX RECORDS.

50.25' / N 90° 00' 00" E INDICATES MEASURED DIMENSION / BEARING.
(50.26') / (N 90° 00' 00" E) INDICATES RECORD DIMENSION / BEARING.
[50.25'] / (N 90° 00' 00" E) INDICATES RECORD CALL DIMENSION / BEARING IN DEED DOCUMENTS R98-150393 AND R98-150390

BEARINGS SHOWN HEREON ARE BASED ON THE ILLINOIS STATE PLANE COORDINATE SYSTEM, EAST ZONE, NAD83

CHECK LEGAL DESCRIPTION WITH DEED OR TITLE POLICY AND REPORT ANY DISCREPANCY IMMEDIATELY. BUILDING LINES AND EASEMENTS, IF ANY, SHOWN HEREON ARE AS SHOWN ON THE RECORDED SUBDIVISION OR AS INDICATED.

ASBUILT LOCATIONS OF TOOL SHEDS AND STORAGE BINS ON PARCEL 2 NOT SURVEYED BY IPLS.

ASBUILT LOCATION OF VER SYSTEM TREATMENT BUILDING ON PARCEL 1 SURVEYED BY BRYAN J. LEE, IPLS NO. 35-3616 RE ALLEN AND ASSOCIATES LTD GRAYSLAKE, ILLINOIS.

| No. | Revision | Date | Initial |
|---|---|---|---|
| | | | |

SCALE VERIFICATION

THIS BAR MEASURES 1" ON ORIGINAL ADJUST SCALE ACCORDINGLY.

Approved

# PROPERTY BOUNDARIES

LEMONT, ILLINOIS

LENZ OIL SITE

**CONESTOGA-ROVERS & ASSOCIATES**

Source Reference:

| Project Manager: | Reviewed By: | Date: |
|---|---|---|
| | T.R. | AUGUST 2011 |

| Scale: | Project No: | Report No: | Drawing No: |
|---|---|---|---|
| 1:60 | 015169-01 | PRES001 | 1 |

PARCEL 1

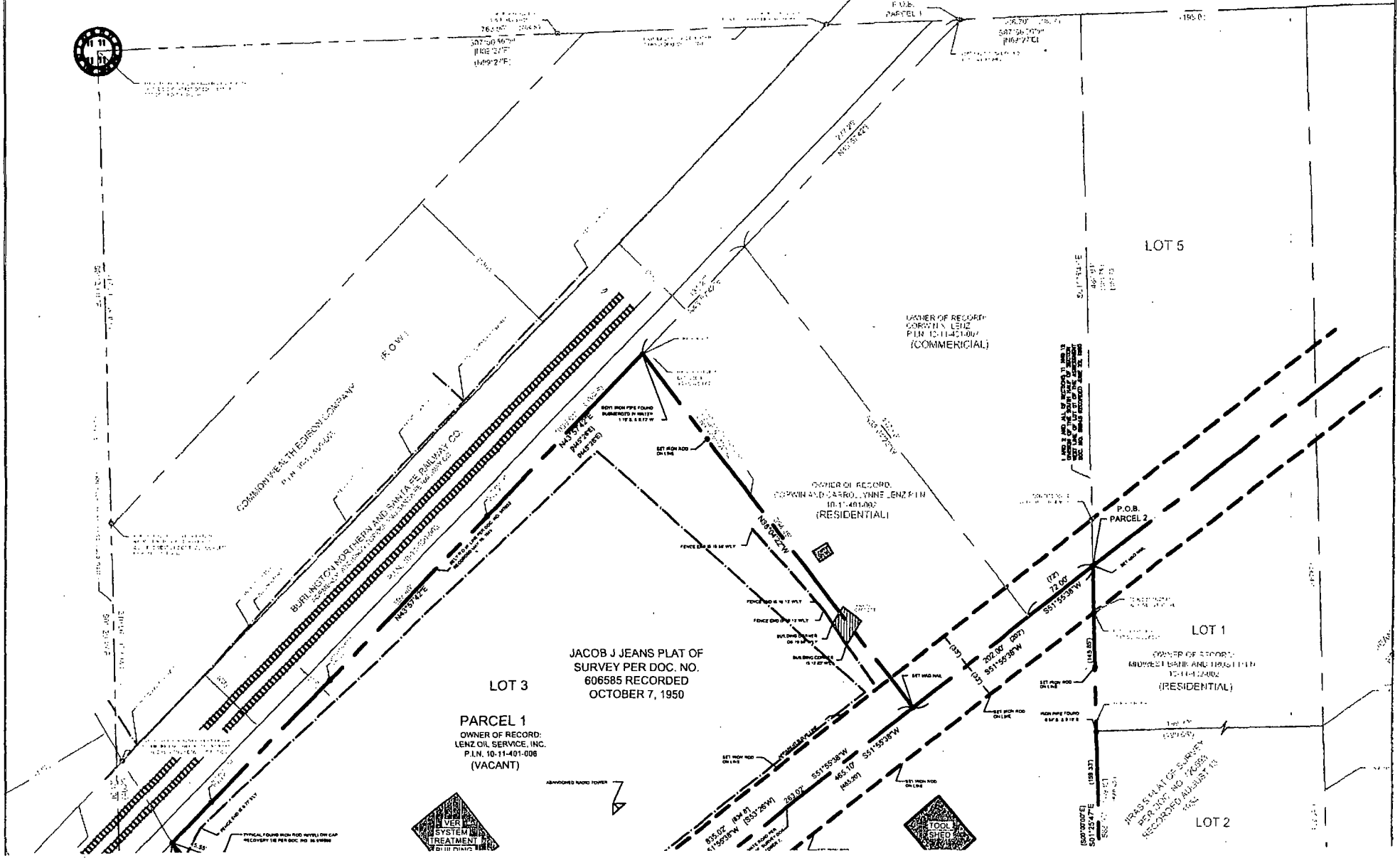
THAT PART OF THE SOUTHEAST QUARTER OF SECTION 11, TOWNSHIP 37 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED BY COMMENCING AT THE CENTER OF SAID SECTION 11 AND RUNNING THENCE NORTH 89 DEGREES 27 MINUTES EAST ALONG THE NORTH LINE OF SAID SOUTHEAST QUARTER, 794.5 FEET TO THE SOUTHEASTERLY RIGHT-OF-WAY LINE OF THE ATCHISON, TOPEKA AND SANTA FE RAILROAD, AS WIDENED, FOR A PLACE OF BEGINNING; THENCE CONTINUING NORTH 89 DEGREES 27 MINUTES EAST ALONG SAID NORTH LINE OF THE SOUTHEAST QUARTER 106.7 FEET TO THE WEST LINE OF LOT 51 OF THE ASSESSMENT DIVISION OF THE SOUTH HALF OF SECTION 1 AND 2 AND ALL OF SECTIONS 11 AND 12, LYING NORTH OF THE NORTH LINE OF THE SANITARY DISTRICT OF CHICAGO, ILLINOIS; THENCE SOUTH ALONG SAID WEST LINE, 487.75 FEET TO THE CENTER LINE OF A PRIVATE ROAD; THENCE SOUTH 63 DEGREES 28 MINUTES WEST ALONG SAID CENTER LINE, 834.8 FEET TO THE EASTERLY LINE OF THE RIGHT-OF-WAY OF STATE HIGHWAY ROUTE 83 (FORMERLY 64); THENCE NORTHWESTERLY ALONG SAID LINE, 313.86 FEET TO THE SOUTHEASTERLY RIGHT-OF-WAY LINE OF SAID SANTA FE RAILROAD AS WIDENED; THENCE NORTH 45 DEGREES 26 MINUTES EAST ALONG SAID WIDENED RIGHT-OF-WAY LINE 1006.6 FEST TO THE PLACE OF BEGINNING, EXCEPT THAT PART LYING NORTHEASTERLY OF A LINE DRAWN NORTHWESTERLY AT RIGHT ANGLES TO THE SOUTHEASTERLY LINE OF THE ABOVE DESCRIBED PROPERTY FROM A POINT WHICH IS 202.0 FEET SOUTHWESTERLY (AS MEASURED ALONG SAID SOUTHEASTERLY LINE) OF THE SOUTHEAST CORNER OF SAID ABOVE DESCRIBED PROPERTY, IN DUPAGE COUNTY, ILLINOIS.

PARCEL 2

THAT PART OF THE SOUTHEAST ¼ OF SECTION 11, TOWNSHIP 37 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS: COMMENCING AT THE CENTER OF SAID SECTION 11; THENCE NORTH 89 DEGREES 27 MINUTES EAST, ALONG THE NORTH LINE OF SAID SOUTHEAST ¼, A DISTANCE OF 671.2 FEET TO THE WEST LINE OF LOT 51 OF THE ASSESSMENT DIVISION OF THE SOUTH ½ OF SECTIONS 1 AND 2 AND ALL OF SECTIONS 11 AND 12 LYING NORTH OF THE NORTH LINE OF THE SANITARY DISTRICT OF CHICAGO; THENCE SOUTH 0 DEGREES 00 MINUTES 00 SECONDS EAST, ALONG SAID WEST LINE, 483.14 FEET (DEED = SOUTH, 484.75 FEET) TO THE CENTER LINE OF A PRIVATE ROAD AS SHOWN ON JACOB J. JEAN'S PLAT OF SURVEY RECORDED OCTOBER 7, 1950 AS DOCUMENT 606585, AND THE POINT OF BEGINNING; THENCE CONTINUING SOUTH 0 DEGREES 00 MINUTES 00 SECONDS EAST, ALONG SAID WEST LINE OF LOT 51, A DISTANCE OF 589.12 FEET (DEED = SOUTH, 589.45 FEET) TO THE NORTHERLY LINE OF SAID PROPERTY OF THE SANITARY DISTRICT OF CHICAGO; THENCE SOUTH 67 DEGREES 01 MINUTES WEST, ALONG SAID NORTHERLY LINE, 209.15 FEET; THENCE NORTH 24 DEGREES 58 MINUTES 33 SECONDS WEST 469.08 FEET TO SAID CENTER LINE OF A PRIVATE ROAD; THENCE NORTH 63 DEGREES 21 MINUTES 13 SECONDS EAST (DEED = NORTH 63 DEGREES 28 MINUTES EAST), ALONG SAID CENTER LINE, 466.20 FEET TO THE POINT OF BEGINNING, ALL IN DUPAGE COUNTY, ILLINOIS.

PARCEL 3

THAT PART OF THE SOUTHEAST ¼ OF SECTION 11, TOWNSHIP 37 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS: COMMENCING AT THE CENTER OF SAID SECTION 11; THENCE NORTH 89 DEGREES 27 MINUTES EAST, ALONG THE NORTH LINE OF SAID SOUTHEAST ¼, A DISTANCE OF 671.2 FEET TO THE WEST LINE OF LOT 51 OF THE ASSESSMENT DIVISION OF THE SOUTH ½ OF SECTIONS 1 AND 2 AND ALL OF SECTIONS 11 AND 12 LYING NORTH OF THE NORTH LINE OF THE SANITARY DISTRICT OF CHICAGO; THENCE SOUTH 0 DEGREES 00 MINUTES 00 SECONDS EAST, ALONG SAID WEST LINE, 1072.26 FEET (DEED = SOUTH, 1074.20 FEET) TO THE NORTHERLY LINE OF SAID PROPERTY OF THE SANITARY DISTRICT OF CHICAGO; THENCE SOUTH 67 DEGREES 01 MINUTES WEST, ALONG SAID NORTHERLY LINE , 209.15 FEET TO THE POINT OF BEGINNING; THENCE CONTINUING SOUTH 67 DEGREES 01 MINUTE WEST, ALONG SAID NORTHERLY LINE, 333.65 FEET TO THE EASTERLY RIGHT-OF- WAY LINE OF STATE HIGHWAY ROUTE 83 (FORMERLY ROUTE 64); THENCE NORTH 29 DEGREES 05 MINUTES 14 SECONDS WEST, ALONG SAID EASTERLY LINE, 441.84 FEET (DEED = 441.90 FEET) TO THE CENTER LINE OF A PRIVATE ROAD AS SOWN ON JACOB J. JEAN'S PLAT OF SURVEY RECORDED OCTOBER 7, 1950 AS DOCUMENT 606585; THENCE NORTH 63 DEGREES 21 MINUTES 13 SECONDS EAST (DEED = NORTH 63 DEGREES 28 MINUTES EAST), ALONG SAID CENTER LINE, 370.00 FEET; THENCE SOUTH 24 DEGREES 58 MINUTES AND 33 SECONDS EAST 469.08 FEET TO THE POINT OF BEGINNING, ALL IN DUPAGE COUNTY, ILLINOIS.



## APPENDIX B: Location of Monitoring Wells

Location of Monitoring Wells are shown on Parcels 2 and 3 of the following map.

PARCEL 1

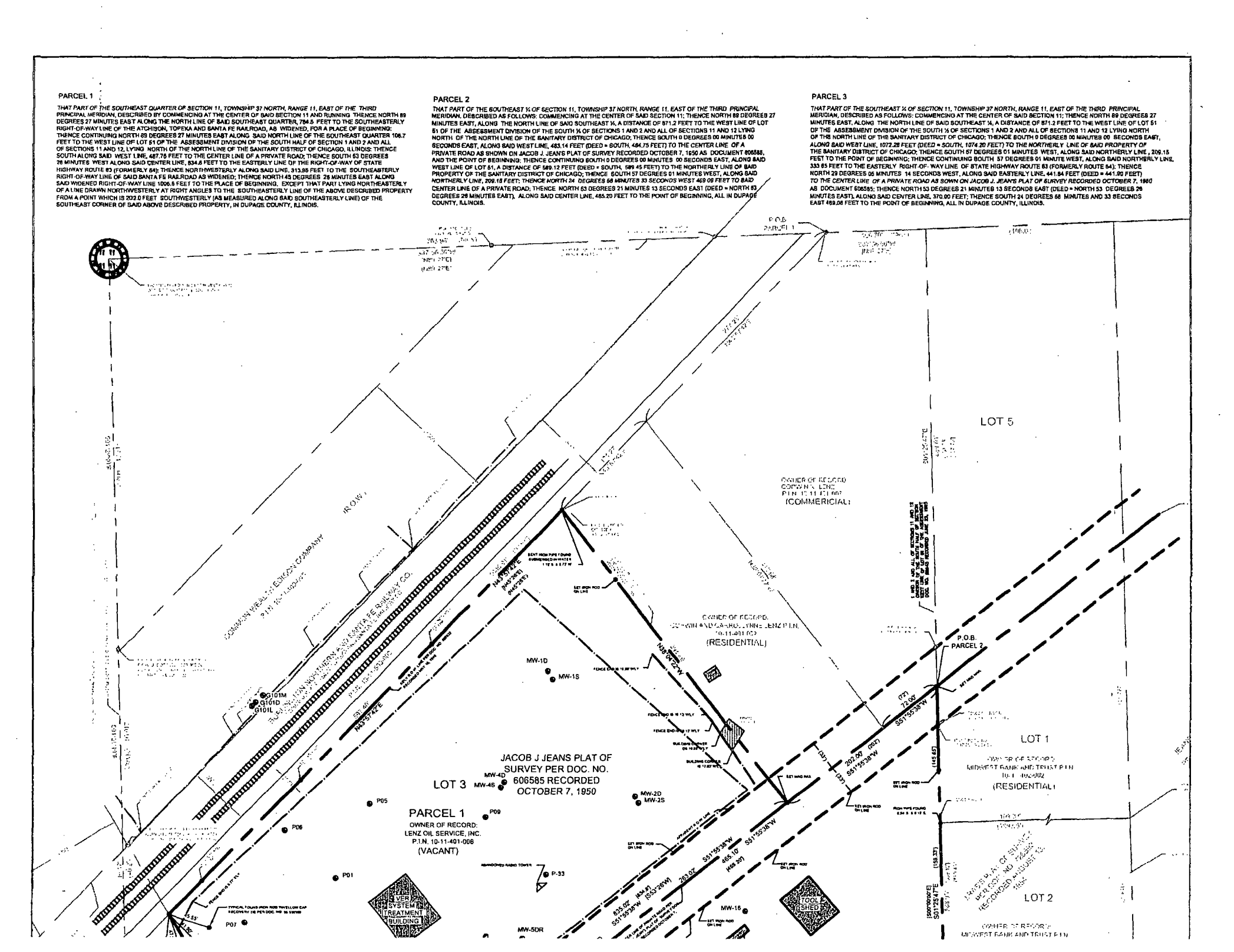
THAT PART OF THE SOUTHEAST QUARTER OF SECTION 11, TOWNSHIP 37 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED BY COMMENCING AT THE CENTER OF SAID SECTION 11 AND RUNNING THENCE NORTH 89 DEGREES 27 MINUTES EAST ALONG THE NORTH LINE OF SAID SOUTHEAST QUARTER, 784.5 FEET TO THE SOUTHEASTERLY RIGHT-OF-WAY LINE OF THE ATCHISON, TOPEKA AND SANTA FE RAILROAD, AS WIDENED, FOR A PLACE OF BEGINNING; THENCE CONTINUING NORTH 89 DEGREES 27 MINUTES EAST ALONG SAID NORTH LINE OF THE SOUTHEAST QUARTER 106.7 FEET TO THE WEST LINE OF LOT 51 OF THE ASSESSMENT DIVISION OF THE SOUTH HALF OF SECTION 1 AND 2 AND ALL OF SECTIONS 11 AND 12, LYING NORTH OF THE NORTH LINE OF THE SANITARY DISTRICT OF CHICAGO, ILLINOIS; THENCE SOUTH ALONG SAID WEST LINE, 487.78 FEET TO THE CENTER LINE OF A PRIVATE ROAD; THENCE SOUTH 53 DEGREES 26 MINUTES WEST ALONG SAID CENTER LINE, 834.6 FEET TO THE EASTERLY LINE OF THE RIGHT-OF-WAY OF STATE HIGHWAY ROUTE 83 (FORMERLY 64); THENCE NORTHWESTERLY ALONG SAID LINE, 313.95 FEET TO THE SOUTHEASTERLY RIGHT-OF-WAY LINE OF SAID SANTA FE RAILROAD AS WIDENED; THENCE NORTH 45 DEGREES 26 MINUTES EAST ALONG SAID WIDENED RIGHT-OF-WAY LINE 1006.5 FEET TO THE PLACE OF BEGINNING, EXCEPT THAT PART LYING NORTHEASTERLY OF A LINE DRAWN NORTHWESTERLY AT RIGHT ANGLES TO THE SOUTHEASTERLY LINE OF THE ABOVE DESCRIBED PROPERTY FROM A POINT WHICH IS 202.0 FEET SOUTHWESTERLY (AS MEASURED ALONG SAID SOUTHEASTERLY LINE) OF THE SOUTHEAST CORNER OF SAID ABOVE DESCRIBED PROPERTY, IN DUPAGE COUNTY, ILLINOIS.

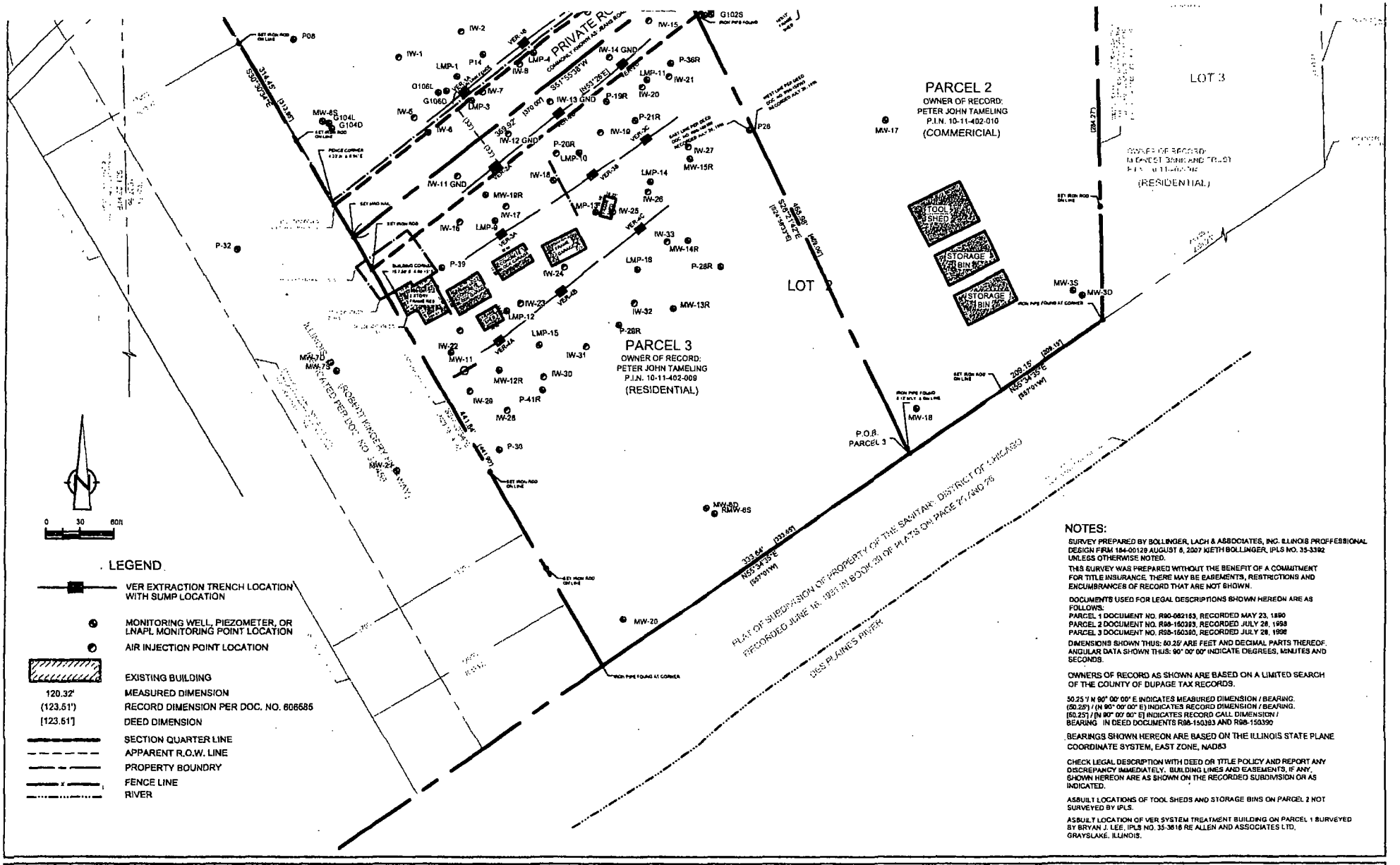
PARCEL 2

THAT PART OF THE SOUTHEAST ¼ OF SECTION 11, TOWNSHIP 37 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS: COMMENCING AT THE CENTER OF SAID SECTION 11; THENCE NORTH 89 DEGREES 27 MINUTES EAST, ALONG THE NORTH LINE OF SAID SOUTHEAST ¼, A DISTANCE OF 871.2 FEET TO THE WEST LINE OF LOT 51 OF THE ASSESSMENT DIVISION OF THE SOUTH ½ OF SECTIONS 1 AND 2 AND ALL OF SECTIONS 11 AND 12 LYING NORTH OF THE NORTH LINE OF THE SANITARY DISTRICT OF CHICAGO; THENCE SOUTH 0 DEGREES 00 MINUTES 00 SECONDS EAST, ALONG SAID WEST LINE, 483.14 FEET (DEED = SOUTH, 484.75 FEET) TO THE CENTER LINE OF A PRIVATE ROAD AS SHOWN ON JACOB J. JEANS PLAT OF SURVEY RECORDED OCTOBER 7, 1950 AS DOCUMENT 606585, AND THE POINT OF BEGINNING; THENCE CONTINUING SOUTH 0 DEGREES 00 MINUTES 00 SECONDS EAST, ALONG SAID WEST LINE OF LOT 51, A DISTANCE OF 589.12 FEET (DEED = SOUTH, 589 45 FEET) TO THE NORTHERLY LINE OF SAID PROPERTY OF THE SANITARY DISTRICT OF CHICAGO; THENCE SOUTH 57 DEGREES 01 MINUTES WEST, ALONG SAID NORTHERLY LINE, 209.15 FEET; THENCE NORTH 24 DEGREES 58 MINUTES 33 SECONDS WEST 469.08 FEET TO SAID CENTER LINE OF A PRIVATE ROAD; THENCE NORTH 53 DEGREES 21 MINUTES 13 SECONDS EAST (DEED = NORTH 53 DEGREES 26 MINUTES EAST), ALONG SAID CENTER LINE, 485.20 FEET TO THE POINT OF BEGINNING, ALL IN DUPAGE COUNTY, ILLINOIS.

PARCEL 3

THAT PART OF THE SOUTHEAST ¼ OF SECTION 11, TOWNSHIP 37 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS: COMMENCING AT THE CENTER OF SAID SECTION 11; THENCE NORTH 89 DEGREES 27 MINUTES EAST, ALONG THE NORTH LINE OF SAID SOUTHEAST ¼, A DISTANCE OF 871.2 FEET TO THE WEST LINE OF LOT 51 OF THE ASSESSMENT DIVISION OF THE SOUTH ½ OF SECTIONS 1 AND 2 AND ALL OF SECTIONS 11 AND 12 LYING NORTH OF THE NORTH LINE OF THE SANITARY DISTRICT OF CHICAGO; THENCE SOUTH 0 DEGREES 00 MINUTES 00 SECONDS EAST, ALONG SAID WEST LINE, 1072.26 FEET (DEED = SOUTH, 1074.20 FEET) TO THE NORTHERLY LINE OF SAID PROPERTY OF THE SANITARY DISTRICT OF CHICAGO; THENCE SOUTH 57 DEGREES 01 MINUTE WEST, ALONG SAID NORTHERLY LINE, 333.85 FEET TO THE EASTERLY RIGHT-OF- WAY LINE OF STATE HIGHWAY ROUTE 83 (FORMERLY ROUTE 64); THENCE NORTH 29 DEGREES 05 MINUTES 14 SECONDS WEST, ALONG SAID EASTERLY LINE, 441.84 FEET (DEED = 441.00 FEET) TO THE CENTER LINE OF A PRIVATE ROAD AS SOWN ON JACOB J. JEANS PLAT OF SURVEY RECORDED OCTOBER 7, 1950 AS DOCUMENT 606585; THENCE NORTH 53 DEGREES 21 MINUTES 13 SECONDS EAST (DEED = NORTH 53 DEGREES 26 MINUTES EAST), ALONG SAID CENTER LINE, 370.00 FEET; THENCE SOUTH 24 DEGREES 58 MINUTES AND 33 SECONDS EAST 469.08 FEET TO THE POINT OF BEGINNING, ALL IN DUPAGE COUNTY, ILLINOIS.






## NOTES:

SURVEY PREPARED BY BOLLINGER, LACH & ASSOCIATES, INC. ILLINOIS PROFFESSIONAL DESIGN FIRM 184-00129 AUGUST 8, 2007 KIETH BOLLINGER, IPLS NO. 35-3392 UNLESS OTHERWISE NOTED.

THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A COMMITMENT FOR TITLE INSURANCE. THERE MAY BE EASEMENTS, RESTRICTIONS AND ENCUMBRANCES OF RECORD THAT ARE NOT SHOWN.

DOCUMENTS USED FOR LEGAL DESCRIPTIONS SHOWN HEREON ARE AS FOLLOWS:
PARCEL 1 DOCUMENT NO. R90-082153, RECORDED MAY 23, 1990
PARCEL 2 DOCUMENT NO. R98-150393, RECORDED JULY 28, 1998
PARCEL 3 DOCUMENT NO. R98-150390, RECORDED JULY 28, 1998

DIMENSIONS SHOWN THUS: 60.25' ARE FEET AND DECIMAL PARTS THEREOF. ANGULAR DATA SHOWN THUS: 90° 00' 00" INDICATE DEGREES, MINUTES AND SECONDS.

OWNERS OF RECORD AS SHOWN ARE BASED ON A LIMITED SEARCH OF THE COUNTY OF DUPAGE TAX RECORDS.

50.25' \ N 90° 00' 00" E INDICATES MEASURED DIMENSION / BEARING.
(50.25') / (N 90° 00' 00" E) INDICATES RECORD DIMENSION / BEARING.
[50.25'] / [N 90° 00' 00" E] INDICATES RECORD CALL DIMENSION / BEARING IN DEED DOCUMENTS R98-150393 AND R98-150390

BEARINGS SHOWN HEREON ARE BASED ON THE ILLINOIS STATE PLANE COORDINATE SYSTEM, EAST ZONE, NAD83

CHECK LEGAL DESCRIPTION WITH DEED OR TITLE POLICY AND REPORT ANY DISCREPANCY IMMEDIATELY. BUILDING LINES AND EASEMENTS, IF ANY, SHOWN HEREON ARE AS SHOWN ON THE RECORDED SUBDIVISION OR AS INDICATED.

ASBUILT LOCATIONS OF TOOL SHEDS AND STORAGE BINS ON PARCEL 2 NOT SURVEYED BY IPLS.

ASBUILT LOCATION OF VER SYSTEM TREATMENT BUILDING ON PARCEL 1 SURVEYED BY BRYAN J. LEE, IPLS NO. 35-3616 RE ALLEN AND ASSOCIATES LTD, GRAYSLAKE, ILLINOIS.

| NR | Revision | Date | Initial |
|---|---|---|---|
| | | | |

SCALE VERIFICATION
THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.

Approved

# MONITORING WELL LOCATIONS

LEMONT, ILLINOIS

LENZ OIL SITE

**CONESTOGA-ROVERS & ASSOCIATES**

Source Reference:

| Project Manager: | Reviewed By: | Date: |
|---|---|---|
| | T.R | AUGUST 2011 |
| Scale: 1:60 | Project No: 015169-01 | Report No: PRES001 / Drawing No: 2 |

015169-01(PRES001)GN-DE004 AUG 03/2011

## APPENDIX C: List of Recorded Encumbrances

## COMMITMENT FOR TITLE INSURANCE

# Chicago Title Insurance Company

CHICAGO TITLE INSURANCE COMPANY, a Nebraska corporation, herein called the Company, for valuable consideration, commits to issue its policy or policies of title insurance, as identified in Schedule A, in favor of the Proposed Insured named in Schedule A, as owner or mortgagee of the estate or interest in the Land described or referred to in Schedule A, upon payment of the premiums and charges and compliance with the Requirements; all subject to the provisions of Schedule A and B and to the Conditions of this Commitment.

This Commitment shall be effective only when the identity of the Proposed Insured and the amount of the policy or policies committed for have been inserted in Schedule A by the Company.

All liability and obligation under this Commitment shall cease and terminate 6 months after the Effective Date or when the policy or policies committed for shall issue, whichever first occurs, provided that the failure to issue the policy or policies is not the fault of the Company.

The Company will provide a sample of the policy form upon request.

IN WITNESS WHEREOF, Chicago Title Insurance Company has caused its corporate name and seal to be affixed by its duly authorized officers on the date shown in Schedule A.

**CHICAGO TITLE INSURANCE COMPANY**

Issued By:

CHICAGO TITLE INSURANCE COMPANY
10 S. LASALLE ST. 3100
CHICAGO, IL 60603

Refer Inquiries To:
(312)223-3005

By

*Authorized Signatory*

**Commitment No.:** 1401 880012672 D2

# CHICAGO TITLE INSURANCE COMPANY

## COMMITMENT FOR TITLE INSURANCE

## SCHEDULE A

YOUR REFERENCE: Informational - Shell Bliwise ORDER NO.: 1401 880012672 D2

**EFFECTIVE DATE:** APRIL 22, 2013

1. **POLICY OR POLICIES TO BE ISSUED:**

| | |
|---|---|
| OWNER'S POLICY: | ALTA OWNERS 2006 |
| AMOUNT: | $10,000.00 |
| PROPOSED INSURED: | NONE. |

2. **THE ESTATE OR INTEREST IN THE LAND DESCRIBED OR REFERRED TO IN THIS COMMITMENT IS FEE SIMPLE, UNLESS OTHERWISE NOTED.**

3. **TITLE TO THE ESTATE OR INTEREST IN THE LAND IS AT THE EFFECTIVE DATE VESTED IN:**
PETER JOHN TAMELING, AS TRUSTEE OF THE PETER JOHN TAMELING TRUST DATED FEBRUARY 23, 1998

# CHICAGO TITLE INSURANCE COMPANY

## COMMITMENT FOR TITLE INSURANCE

## SCHEDULE A (CONTINUED)

ORDER NO.: 1401 880012672 D2

**4A. LOAN POLICY 1 MORTGAGE OR TRUST DEED TO BE INSURED:**

NONE

**4B. LOAN POLICY 2 MORTGAGE OR TRUST DEED TO BE INSURED:**

NONE

5. **THE LAND REFERRED TO IN THIS COMMITMENT IS DESCRIBED AS FOLLOWS:**

PARCEL 1:

THAT PART OF THE SOUTHEAST 1/4 OF SECTION 11, TOWNSHIP 37 NORTH, RANGE 11 EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS:

COMMENCING AT THE CENTER OF SAID SECTION 11; THENCE NORTH 89 DEGREES 27 MINUTES EAST, ALONG THE NORTH LINE OF SAID SOUTHEAST 1/4, A DISTANCE OF 871.2 FEET TO THE WEST LINE OF LOT 51 OF THE ASSESSMENT DIVISION OF THE SOUTH 1/2 OF SECTIONS 1 AND 2 AND ALL OF SECTIONS 11 AND 12 LYING NORTH OF THE NORTH LINE OF THE SANITARY DISTRICT OF CHICAGO; THENCE SOUTH 00 DEGREES 00 MINUTES 00 SECONDS EAST, ALONG SAID WEST LINE, 1072.26 FEET (DEED = SOUTH, 1074.20 FEET) TO THE NORTHERLY LINE OF SAID PROPERTY OF THE SANITARY DISTRICT OF CHICAGO; THENCE SOUTH 57 DEGREES 01 MINUTES WEST, ALONG SAID NORTHERLY LINE, 209.15 FEET TO THE POINT OF BEGINNING; THENCE CONTINUING SOUTH 57 DEGREES 01 MINUTES WEST, ALONG SAID NORTHERLY LINE, 333.65 FEET TO THE EASTERLY RIGHT OF WAY LINE OF STATE HIGHWAY ROUTE 83 (FORMERLY ROUTE 54); THENCE NORTH 29 DEGREES 05 MINUTES 14 SECONDS WEST, ALONG SAID EASTERLY LINE, 441.84 FEET (DEED = 484.90 FEET) TO THE CENTER LINE OF A PRIVATE ROAD AS SHOWN ON JACOB J. JEAN'S PLAT OF SURVEY RECORDED OCTOBER 7, 1950 AS DOCUMENT 606585; THENCE NORTH 53 DEGREES 21 MINUTES 13 SECONDS EAST (DEED = NORTH 53 DEGREES 26 MINUTES EAST), ALONG SAID CENTER LINE, 370.00 FEET; THENCE SOUTH 24 DEGREES 56 MINUTES 33 SECONDS EAST, 469.06 FEET TO THE POINT OF BEGINNING, ALL IN DU PAGE COUNTY, ILLINOIS.

PARCEL 2:

THAT PART OF THE SOUTHEAST 1/4 OF SECTION 11, TOWNSHIP 37 NORTH, RANGE 11 EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS:

COMMENCING AT THE CENTER OF SAID SECTION 11; THENCE NORTH 89 DEGREES 27 MINUTES EAST, ALONG THE NORTH LINE OF SAID SOUTHEAST 1/4, A DISTANCE OF 871.2 FEET TO THE WEST LINE OF LOT 51 OF THE ASSESSMENT DIVISION OF THE SOUTH 1/2 OF SECTIONS 1 AND 2 AND ALL OF SECTIONS 11 AND 12 LYING NORTH OF THE NORTH LINE OF THE SANITARY DISTRICT OF CHICAGO; THENCE SOUTH 00 DEGREES 00 MINUTES 00 SECONDS EAST, ALONG SAID WEST LINE, 483.14 FEET (DEED = 484.75 FEET) TO THE CENTER LINE OF A PRIVATE ROAD AS SHOWN ON JACOB J. JEAN'S PLAT OF SURVEY RECORDED OCTOBER 7, 1950 AS DOCUMENT 606585, AND THE POINT OF BEGINNING; THENCE CONTINUING SOUTH 00 DEGREES 00 MINUTES 00 SECONDS EAST, ALONG SAID WEST LINE OF LOT 51, A DISTANCE OF 589.12 FEET (DEED = SOUTH, 589.45 FEET) TO THE NORTHERLY LINE OF SAID PROPERTY OF THE SANITARY DISTRICT OF CHICAGO; THENCE SOUTH 57 DEGREES 01 MINUTES WEST, ALONG SAID NORTHERLY LINE, 209.15 FEET; THENCE NORTH 24 DEGREES 56 MINUTES 33 SECONDS WEST, 469.06 FEET TO SAID CENTER LINE OF A PRIVATE ROAD; THENCE NORTH 53 DEGREES 21 MINUTES 13 SECONDS EAST (DEED = NORTH 53 DEGREES 26 MINUTES EAST), ALONG SAID CENTER LINE, 465.20 FEET TO THE POINT OF BEGINNING, ALL IN DU PAGE COUNTY, ILLINOIS.

# CHICAGO TITLE INSURANCE COMPANY

## COMMITMENT FOR TITLE INSURANCE

## SCHEDULE B

ORDER NO.: 1401 880012672 D2

SCHEDULE B OF THE POLICY OR POLICIES TO BE ISSUED WILL CONTAIN EXCEPTIONS TO THE FOLLOWING MATTERS UNLESS THE SAME ARE DISPOSED OF TO THE SATISFACTION OF THE COMPANY.

GENERAL EXCEPTIONS

1. RIGHTS OR CLAIMS OF PARTIES IN POSSESSION NOT SHOWN BY PUBLIC RECORDS.

2. ANY ENCROACHMENT, ENCUMBRANCE, VIOLATION, VARIATION, OR ADVERSE CIRCUMSTANCE AFFECTING THE TITLE THAT WOULD BE DISCLOSED BY AN ACCURATE AND COMPLETE LAND SURVEY OF THE LAND.

3. EASEMENTS, OR CLAIMS OF EASEMENTS, NOT SHOWN BY PUBLIC RECORDS.

4. ANY LIEN, OR RIGHT TO A LIEN, FOR SERVICES, LABOR OR MATERIAL HERETOFORE OR HEREAFTER FURNISHED, IMPOSED BY LAW AND NOT SHOWN BY THE PUBLIC RECORDS.

5. TAXES OR SPECIAL ASSESSMENTS WHICH ARE NOT SHOWN AS EXISTING LIENS BY THE PUBLIC RECORDS.

6. IF EXTENDED COVERAGE OVER THE FIVE GENERAL EXCEPTIONS IS REQUESTED, WE SHOULD BE FURNISHED THE FOLLOWING:

   A. A CURRENT ALTA/ACSM OR ILLINOIS LAND TITLE SURVEY CERTIFIED TO CHICAGO TITLE INSURANCE COMPANY;

   B. A PROPERLY EXECUTED ALTA STATEMENT;

   MATTERS DISCLOSED BY THE ABOVE DOCUMENTATION WILL BE SHOWN SPECIFICALLY.

   NOTE: THERE WILL BE AN ADDITIONAL CHARGE FOR THIS COVERAGE.

7. NOTE FOR INFORMATION: THE COVERAGE AFFORDED BY THIS COMMITMENT AND ANY POLICY ISSUED PURSUANT HERETO SHALL NOT COMMENCE PRIOR TO THE DATE ON WHICH ALL CHARGES PROPERLY BILLED BY THE COMPANY HAVE BEEN FULLY PAID.

A 8. **THIS PRODUCT (SEARCH/COMMITMENT) HAS BEEN PROVIDED TO THE CUSTOMER AT THEIR REQUEST FOR INFORMATIONAL PURPOSES ONLY. THE LIABILITY OF THE COMPANY HEREUNDER FOR ANY ERRORS OR OMISSIONS IS HEREBY LIMITED TO THE ACTUAL DOLLAR AMOUNT PAID BY THE CUSTOMER TO THE COMPANY FOR THIS PRODUCT.**

B 9. NOTE FOR ADDITIONAL INFORMATION: THE DUPAGE COUNTY RECORDER REQUIRES THAT ANY DOCUMENTS PRESENTED FOR RECORDING CONTAIN THE FOLLOWING INFORMATION:

   A. THE NAME AND ADDRESS OF THE PARTY WHO PREPARED THE DOCUMENT;
   B. THE NAME AND ADDRESS OF THE PARTY TO WHOM THE DOCUMENT SHOULD BE MAILED AFTER RECORDING;
   C. ALL PERMANENT REAL ESTATE TAX INDEX NUMBERS OF ANY PROPERTY LEGALLY DESCRIBED IN THE DOCUMENT;
   D. THE ADDRESS OF ANY PROPERTY LEGALLY DESCRIBED IN THE DOCUMENT;
   E. ALL DEEDS SHOULD CONTAIN THE ADDRESS OF THE GRANTEE AND SHOULD ALSO NOTE THE NAME AND ADDRESS OF THE PARTY TO WHOM THE TAX BILLS SHOULD BE SENT.
   F. ANY DEEDS CONVEYING UNSUBDIVIDED LAND, OR, PORTIONS OF SUBDIVIDED LAND, MAY NEED TO BE ACCOMPANIED BY A PROPERLY EXECUTED "PLAT ACT AFFIDAVIT."

   IN ADDITION, PLEASE NOTE THAT THE MUNICIPALITIES OF ADDISON, AURORA, BARTLETT, BOLINGBROOK, CAROL STREAM, ELK GROVE VILLAGE, ELMHURST, GLENDALE HEIGHTS, GLEN ELLYN, HANOVER PARK, NAPERVILLE, SCHAUMBURG, WEST CHICAGO, WHEATON, AND WOODRIDGE HAVE ENACTED TRANSFER TAX ORDINANCES. TO RECORD A CONVEYANCE OF LAND

LOCATED IN THESE MUNICIPALITIES, THE REQUIREMENTS OF THE TRANSFER TAX ORDINANCES MUST BE MET. A CONVEYANCE OF PROPERTY IN THESE CITIES MAY NEED TO HAVE THE APPROPRIATE TRANSFER TAX STAMPS AFFIXED BEFORE IT CAN BE RECORDED.

**FURTHERMORE, ALL DEEDS AND MORTGAGES SHOULD INCLUDE THE CURRENT MARITAL STATUS OF ALL INDIVIDUAL PARTIES, WHERE APPROPRIATE. A SPOUSE OF AN INDIVIDUAL GRANTOR OR MORTGAGOR MAY HAVE TO SIGN THE DEED OR MORTGAGE IN ORDER TO RELEASE ANY APPLICABLE HOMESTEAD INTEREST.**

THIS EXCEPTION WILL NOT APPEAR ON THE POLICY WHEN ISSUED.

*C* 10. TAXES FOR THE YEARS 2012 AND 2013.

TAXES FOR THE YEAR 2012 ARE PAYABLE IN 2 INSTALLMENTS.

THE FIRST INSTALLMENT AMOUNTING TO $1,335.99 IS NOT DELINQUENT BEFORE JUNE 4, 2013.

THE SECOND INSTALLMENT AMOUNTING TO $1,335.99 IS NOT DELINQUENT BEFORE SEPTEMBER 4, 2013.

TAXES FOR THE YEAR 2013 ARE NOT YET DUE AND PAYABLE.

PERMANENT INDEX NUMBER: 10-11-402-009

(AFFECTS PARCEL 1)

*V* 11. TAXES FOR THE YEARS 2012 AND 2013.

TAXES FOR THE YEAR 2012 ARE PAYABLE IN 2 INSTALLMENTS.

THE FIRST INSTALLMENT AMOUNTING TO $3,491.21 IS NOT DELINQUENT BEFORE JUNE 4, 2013.

THE SECOND INSTALLMENT AMOUNTING TO $3,491.21 IS NOT DELINQUENT BEFORE SEPTEMBER 4, 2013.

TAXES FOR THE YEAR 2013 ARE NOT YET DUE AND PAYABLE.

PERMANENT INDEX NUMBER: 10-11-402-010

(AFFECTS PARCEL 2)

*L* 12. LIFE ESTATE OF JOSEPHINE WILLIAMS AS CREATED BY DEED DATED MARCH 1, 1996 AND RECORDED MARCH 6, 1996 AS DOCUMENT NUMBER R96-37026.

(AFFECTS PARCEL 1)

*E* 13. EXISTING UNRECORDED LEASES AND ALL RIGHTS THEREUNDER OF THE LESSEES AND OF ANY PERSON OR PARTY CLAIMING BY, THROUGH OR UNDER THE LESSEES.

F 14. WE SHOULD BE FURNISHED A STATEMENT THAT THERE IS NO PROPERTY MANAGER EMPLOYED TO MANAGE THE LAND, OR, IN THE ALTERNATIVE, A FINAL LIEN WAIVER FROM ANY SUCH PROPERTY MANAGER.

G 15. TERMS, POWERS, PROVISIONS AND LIMITATIONS OF THE TRUST UNDER WHICH TITLE TO THE LAND IS HELD.

H 16. A PROPERLY CERTIFIED COPY OF THE ORIGINAL TRUST AGREEMENT UNDER WHICH TITLE TO THE LAND IS HELD, TOGETHER WITH A STATEMENT IN WRITING BY THE TRUSTEE THAT IT WILL PRODUCE THE ORIGINAL AGREEMENT UPON REQUEST, SHOULD BE FURNISHED, AND THIS COMMITMENT IS SUBJECT TO SUCH FURTHER EXCEPTIONS, IF ANY, AS THEN MAY BE DEEMED NECESSARY.

I 17. NOTE: THE LAND DESCRIBED IN SCHEDULE A EITHER IS UNSUBDIVIDED PROPERTY OR CONSTITUTES PART OF A SUBDIVIDED LOT. AS A RESULT, A PLAT ACT AFFIDAVIT SHOULD ACCOMPANY ANY CONVEYANCE TO BE RECORDED. IN THE ALTERNATIVE, COMPLIANCE SHOULD BE HAD WITH THE PROVISIONS OF THE PLAT ACT (765 ILCS 205/1 ET SEQ.).

J 18. EASEMENT OVER THE THE LAND FOR INGRESS AND EGRESS TO PROPERTY EAST AND ADJOINING CONTAINED EASEMENT AGREEMENT BY AND BETWEEN JACOB J. JEANS AND EDWARD WEITLINE AND CLARA H. WEITLING, HIS WIFE, DATED JULY 14, 1943 AND RECORDED JULY 24, 1943 AS DOCUMENT 451483 AND ALSO AS SHOWN ON THE PLAT OF SURVEY RECORDED OCTOBER 7, 1950 AS DOCUMENT 606585.

(FOR FURTHER PARTICULARS, SEE RECORD.)

(AFFECTS THE NORTHWESTERLY 33 FEET OF THE LAND)

P 19. RIGHTS OF THE PUBLIC, THE STATE OF ILLINOIS AND THE MUNICIPALITY IN AND TO THAT PART OF THE LAND, IF ANY, TAKEN OR USED FOR ROAD PURPOSES.

K 20. FRONTAGE PERMIT MADE BY FRED LENZ TO STANDARD OIL COMPANY, AN INDIANA CORPORATION, ITS SUCCESSORS AND ASSIGNS, THE RIGHT TO LAY, MAINTAIN, OPERATE, REPLACE AND REMOVE A PIPELINE FOR THE TRANSPORTATION OF PETROLEUM PRODUCTS, UPON, UNDER AND WITHIN THE EAST SIDE OF THE PUBLIC HIGHWAY RIGHT OF WAY KNOWN AS ILLINOIS ROUTE 83, ON OR ADJOINING THE GRANTOR'S LAND. SAID PERMIT MADE UPON THE CONDITION THAT STANDARD OIL COMPANY PAY ANY DAMAGES WHICH MAY ARISE TO GRANTOR'S INGRESS AND EGRESS ROADWAYS, CULVERTS, WALKS, FENCES OR OTHER IMPROVEMENTS OF GRANTORS, FROM THE EXERCISE OF THE RIGHTS THEREIN GRANTED. SAID PIPELINE SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH A STATE PERMIT AND SPECIFICATIONS AND AT THE RISK AND EXPENSE OF STANDARD OIL COMPANY. THE TERMS, CONDITIONS AND PROVISIONS OF THIS AGREEMENT SHALL EXTEND TO AND BE BINDING UPON THE HEIRS, EXECUTORS, ADMINISTRATORS, PERSONAL REPRESENTATIVE, SUCESSORS AND ASSIGNS OF THE PARTIES THERETO, DATED AUGUST 12, 1958 AND RECORDED OCTOBER 21, 1959 AS DOCUMENT 944464.

ASSIGNMENT OF RIGHTS OF WAY TO THE AMERICAN OIL COMPANY, A MARYLAND CORPORATION DATED DECEMBER 31, 1960 AND RECORDED MARCH 23, 1961 AS DOCUMENT R61-786.

(AFFECTS AFFECTS THE LAND AND OTHER PROPERTY)

O 21. FRONTAGE PERMIT TO WEST SHORE PIPE LINE CO., A DELAWARE CORPORATION, ITS SUCCESSORS AND ASSIGNS, THE RIGHT TO LAY, MAINTAIN, OPERATE, REPLACE AND REMOVE A PIPELINE FOR THE TRANSPORTATION OF PETROLEUM PRODUCTS, UPON, UNDER AND WITHIN THE EAST SIDE OF THE PUBLIC HIGHWAY RIGHT OF WAY KNOWN AS ILLINOIS ROUTE 83, ON OR ADJOINING THE GRANTOR'S LAND. SAID PERMIT MADE UPON THE CONDITION THAT STANDARD OIL COMPANY PAY ANY DAMAGES WHICH MAY ARISE TO GRANTOR'S INGRESS AND EGRESS ROADWAYS, CULVERTS, WALKS, FENCES OR OTHER IMPROVEMENTS OF GRANTORS, FROM THE EXERCISE OF THE RIGHTS THEREIN GRANTED. SAID PIPELINE SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH A STATE PERMIT AND SPECIFICATIONS AND AT THE RISK AND EXPENSE OF STANDARD OIL COMPANY. THE TERMS, CONDITIONS AND PROVISIONS OF THIS AGREEMENT SHALL EXTEND TO AND BE BINDING UPON THE HEIRS, EXECUTORS, ADMINISTRATORS, PERSONAL REPRESENTATIVE, SUCESSORS AND ASSIGNS OF THE PARTIES THERETO, DATED SEPTEMBER 1, 1959 AND RECORDED OCTOBER 11, 1960 AS DOCUMENT 982997.

N 22. GATE JUNCTION CONTRACT RECORDED OCTOBER 21, 1959 AS DOCUMENT 944463 GRANTED TO STANDARD OIL COMPANY FOR PIPELINE OR OTHER GATE VALVES AND DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTHWEST CORNER OF LOT 2; THENCE NORTHWESTERLY ALONG THE EAST RIGHT OF WAY LINE OF ILLINOIS ROUTE 83, A DISTANCE OF 263 FEET TO A POINT OF BEGINNING; THENCE NORTHEASTERLY PERPENDICULAR TO SAID RIGHT OF WAY LINE A DISTANCE OF 25 FEET; THENCE NORTHWESTERLY, PARALLEL TO SAID RIGHT OF WAY LINE A DISTANCE OF 25 FEET; THENCE SOUTHWESTERLY PERPENDICULAR TO SAID RIGHT OF WAY LINE A DISTANCE OF 25 FEET; THENCE SOUTHEASTERLY A DISTANCE OF 25 FEET, ALONG SAID RIGHT OF WAY LINE TO THE POINT OF BEGINNING.

NOTE: BY ASSIGNMENT RECORDED MARCH 23, 1961 AS DOCUMENT R61-786, STANDARD OIL COMPANY CONVEYED ALL RIGHT, TITLE AND INTEREST IN SAID CONTRACT TO AMERICAN OIL COMPANY.

Q 23. RIGHTS OF WAY FOR DRAINAGE TILES, DITCHES, FEEDERS, LATERALS AND UNDERGROUND PIPES, IF ANY.

R FOR ALL ILLINOIS PROPERTY: FOR COMMITMENT ONLY

EFFECTIVE JUNE 1, 2009, PURSUANT TO PUBLIC ACT 95-988, SATISFACTORY EVIDENCE OF IDENTIFICATION MUST BE PRESENTED FOR THE NOTARIZATION OF ANY AND ALL DOCUMENTS NOTARIZED BY AN ILLINOIS NOTARY PUBLIC. UNTIL JULY 1, 2013, SATISFACTORY IDENTIFICATION DOCUMENTS ARE DOCUMENTS THAT ARE VALID AT THE TIME OF THE NOTARIAL ACT; ARE ISSUED BY A STATE OF FEDERAL GOVERNMENT AGENCY; BEAR THE PHOTOGRAPHIC IMAGE OF THE INDIVIDUAL'S FACE; AND BEAR THE INDIVIDUAL'S SIGNATURE.

S "BE ADVISED THAT THE "GOOD FUNDS" SECTION OF THE TITLE INSURANCE ACT (215 ILCS 155/26) BECOMES EFFECTIVE 1-1-2010. THIS ACT PLACES LIMITATIONS UPON THE SETTLEMENT AGENT'S ABILITY TO ACCEPT CERTAIN TYPES OF DEPOSITS INTO ESCROW.

PLEASE CONTACT YOUR LOCAL CHICAGO TITLE OFFICE REGARDING THE APPLICATION OF THIS NEW LAW TO YOUR TRANSACTION."

** END **

# CHICAGO TITLE INSURANCE COMPANY

## COMMITMENT FOR TITLE INSURANCE

ORDER NO.: 1401 880012672 D2

## CONDITIONS

1. The term mortgage, when used herein, shall include deed of trust, trust deed, or other security instrument.

2. If the proposed Insured has or acquired actual knowledge of any defect, lien, encumbrance, adverse claim or other matter affecting the estate or interest or mortgage thereon covered by this Commitment other than those shown in Schedule B hereof, and shall fail to disclose such knowledge to the Company in writing, the Company shall be relieved from liability for any loss or damage resulting from any act of reliance hereon to the extent the Company is prejudiced by failure to so disclose such knowledge. If the proposed Insured shall disclose such knowledge to the Company, or if the company otherwise acquires actual knowledge of any such defect, lien, encumbrance, adverse claim or other matter, the Company at its option may amend Schedule B of this Commitment accordingly, but such amendment shall not relieve the Company from liability previously incurred pursuant to paragraph 3 or these Conditions.

3. Liability of the Company under this Commitment shall be only to the named proposed Insured and such parties included under the definition of Insured in the form of policy or policies committed for and only for actual loss incurred in reliance hereon in undertaking in good faith (a) to comply with the requirements hereof, or (b) to eliminate exceptions shown in Schedule B, or (c) to acquire or create the estate or interest or mortgage thereon covered by this Commitment. In no event shall such liability exceed the amount stated in Schedule A for the policy or policies committed for and such liability is subject to the insuring provisions and Conditions and the Exclusions from Coverage of the form of policy or policies committed for in favor of the proposed Insured which are hereby incorporated by reference and are made a part of this Commitment except as expressly modified herein.

4. This Commitment is a contract to issue one or more title insurance policies and is not an abstract of title or a report of the condition of title. Any action or actions or rights of action that the proposed Insured may have or may bring against the Company arising out of the status of the title to the estate or interest or the status of the mortgage thereon covered by this Commitment must be based on and are subject to the provisions of this Commitment.

5. *The policy to be issued contains an arbitration clause. All arbitrable matters when the Amount of Insurance is $2,000,000 or less shall be arbitrated at the option of either the Company or the Insured as the exclusive remedy of the parties. You may review a copy of the arbitration rules at <http://www.alta.org/>.*

# CHICAGO TITLE INSURANCE COMPANY

## 1031 EXCHANGE SERVICES

**If your transaction involves a tax deferred exchange, we offer this service through our 1031 division, IPX1031. As the nation's largest 1031 company, IPX1031 offers guidance and expertise. Security for Exchange funds includes segregated bank accounts and a 100 million dollar Fidelity Bond. Fidelity National Title Group also provides a 50 million dollar Performance Guaranty for each Exchange. For additional information or to set-up an Exchange, please call Scott Nathanson at (312) 223-2178 or Anna Barsky at (312) 223-2169.**

Effective Date: May 1, 2008

# Fidelity National Financial, Inc.
# Privacy Statement

Fidelity National Financial, Inc. and its subsidiaries ("FNF") respect the privacy and security of your non-public personal information ("Personal Information") and protecting your Personal Information is one of our top priorities. This Privacy Statement explains FNF's privacy practices, including how we use the Personal Information we receive from you and from other specified sources, and to whom it may be disclosed. FNF follows the privacy practices described in this Privacy Statement and, depending on the business performed, FNF companies may share information as described herein.

**Personal Information Collected**

We may collect Personal Information about you from the following sources:
Information we receive from you on applications or other forms, such as your name, address, social security number, tax identification number, asset information and income information;
Information we receive from you through our Internet websites, such as your name, address, email address, Internet Protocol address, the website links you used to get to our websites, and your activity while using or reviewing our websites;
Information about your transactions with or services performed by us, our affiliates, or others, such as information concerning your policy, premiums, payment history, information about your home or other real property, information from lenders and other third parties involved in such transactions, account balances, and credit card information; and
Information we receive from consumer or other reporting agencies and publicly recorded documents.

**Disclosure of Personal Information**

We may provide your Personal Information (excluding information we receive from consumer or other credit reporting agencies) to various individuals and companies, as permitted by law, without obtaining your prior authorization. Such laws do not allow consumers to restrict these disclosures. Disclosures may include, without limitation, the following:
To insurance agents, brokers, representatives, support organizations, or others to provide you with services you have requested, and to enable us to detect or prevent criminal activity, fraud, material misrepresentation, or nondisclosure in connections with an insurance transactions;
To third-party contractors or service providers for the purpose of determining your eligibility for an insurance benefit or payment and/or providing you with services you have requested;
To an insurance regulatory authority, or law enforcement or other governmental authority, in a civil action, in connection with a subpoena or a governmental investigation;
To companies that perform marketing services on our behalf or to other financial institutions with which we have had joint marketing agreements and/or
To lenders, lien holders, judgement creditors, or other parties claiming an encumbrance or an interest in title whose claim or interest must be determined, settled, paid or released prior to a title or escrow closing.

We may also disclose your Personal Information to others when we believe, in good faith, that such disclosure is reasonably necessary to comply with the law or to protect the safety of our customers, employees, or property and/or to comply with a judicial proceeding, court order or legal process.

Disclosure to Affiliated Companies - We are permitted by law to share your name, address and facts about your transaction with other FNF companies, such as insurance companies, agents, and other real estate service providers to provide you with services you have requested, for marketing or product development research, or to market products or services to you. We do not, however, disclose information we collect from consumer or credit reporting agencies with our affiliates or others without your consent, in conformity with applicable law, unless such disclosure is otherwise permitted by law.

Disclosure to Nonaffiliated Third Parties - We do not disclose Personal Information about our customers or former customers to nonaffiliated third parties, except as outlined herein or as otherwise permitted by law.

**Confidentiality and Security of Personal Information**

We restrict access to Personal Information about you to those employees who need to know that information to provide products or services to you. We maintain physical, electronic, and procedural safeguards that comply with federal regulations to guard Personal Information.

**Access to Personal Information/**
**Requests for Correction, Amendment, or Deletion of Personal Information**

As required by applicable law, we will afford you the right to access your Personal Information, under certain circumstances to find out to whom your Personal Information has been disclosed, and request correction or deletion of your Personal Information. However, FNF's current policy is to maintain customers' Personal Information for no less than your state's required record retention requirements for the purpose of handling future coverage claims.

For your protection, all requests made under this section must be in writing and must include your notarized signature to establish your identity. Where permitted by law, we may charge a reasonable fee to cover the costs incurred in responding to such requests. Please send requests to:

Chief Privacy Officer
Fidelity National Financial, Inc.
601 Riverside Avenue
Jacksonville, FL 32204

**Changes to this Privacy Statement**

This Privacy Statement may be amended from time to time consistent with applicable privacy laws. When we amend this Privacy Statement, we will post a notice of such changes on our website. The effective date of this Privacy Statement, as stated above, indicates the last time this Privacy Statement was revised or materially changed.

U.S. ENVIRONMENTAL
PROTECTION AGENCY

NOV 2 1 2013

OFFICE OF REGIONAL
COUNSEL